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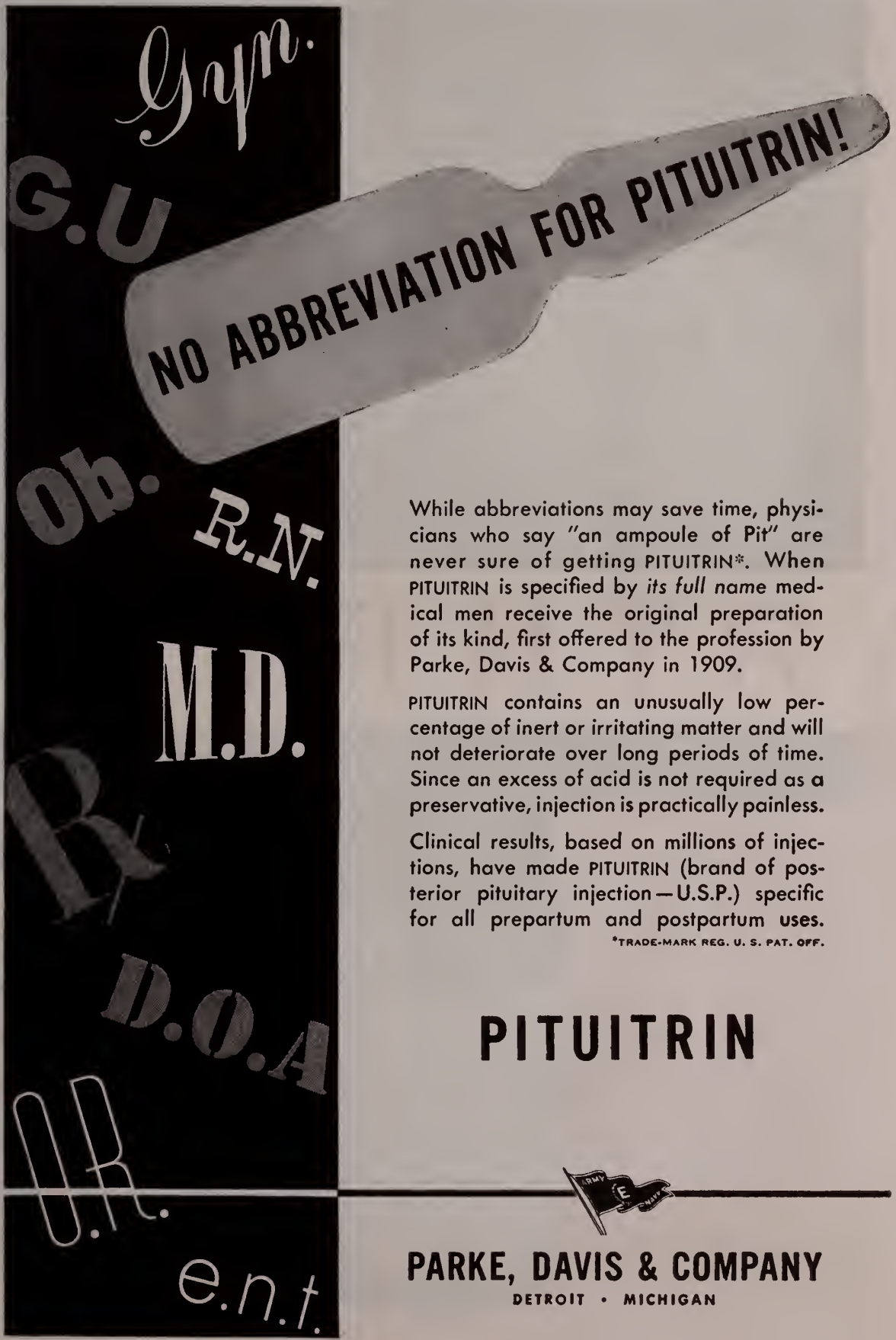
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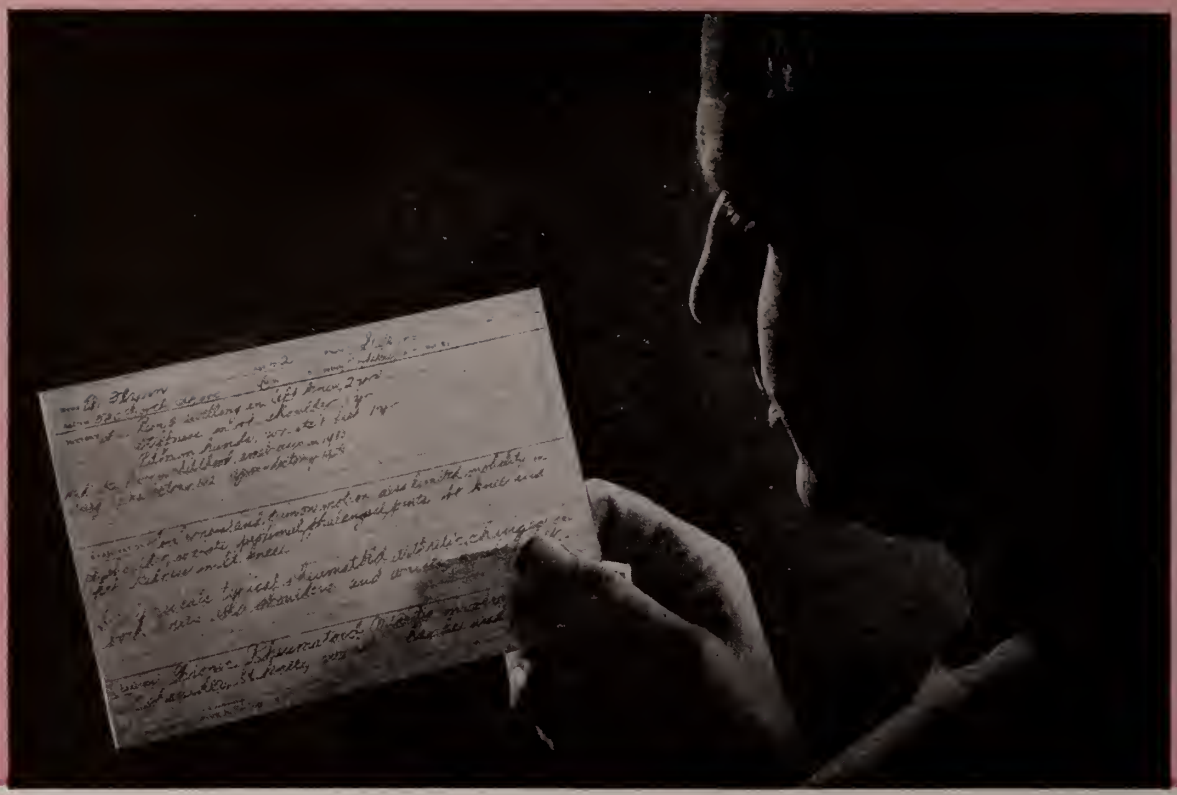
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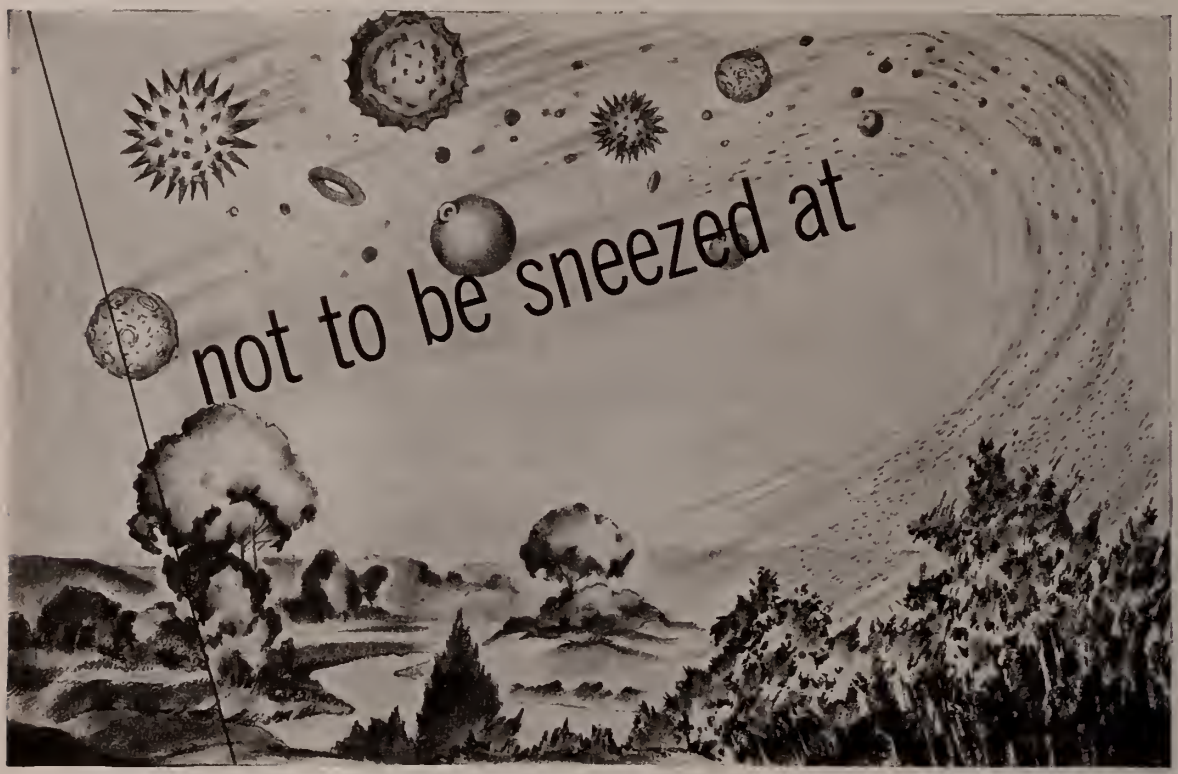
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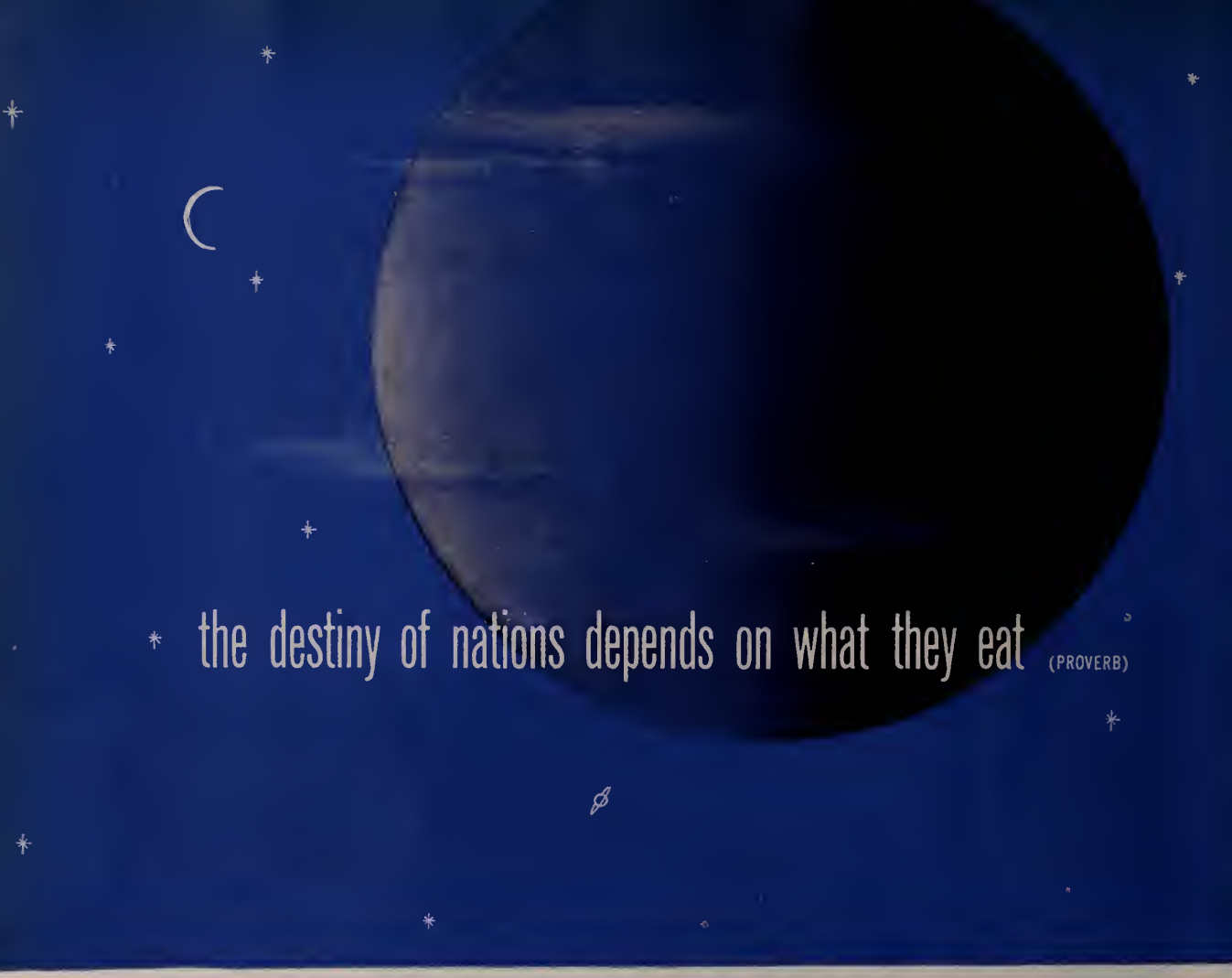
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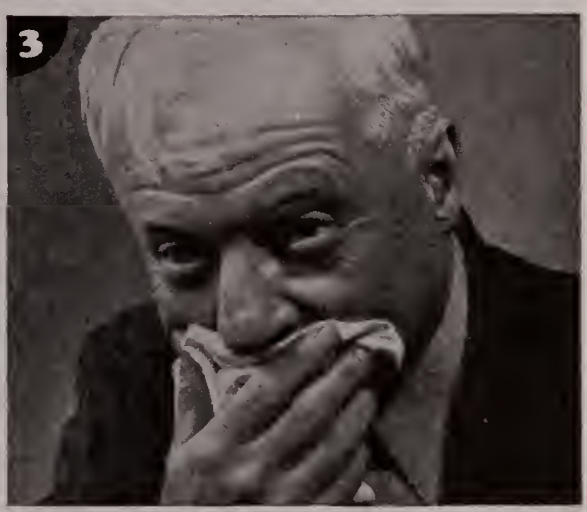
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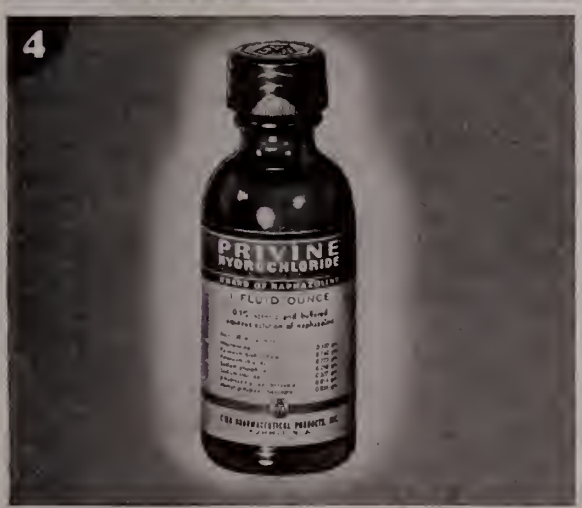
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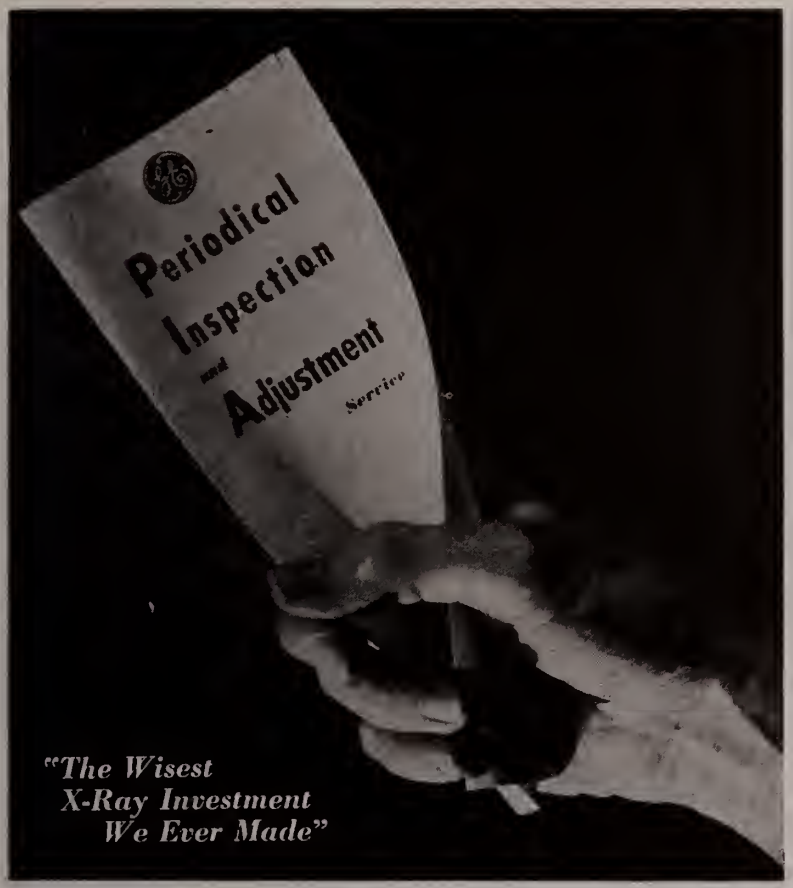
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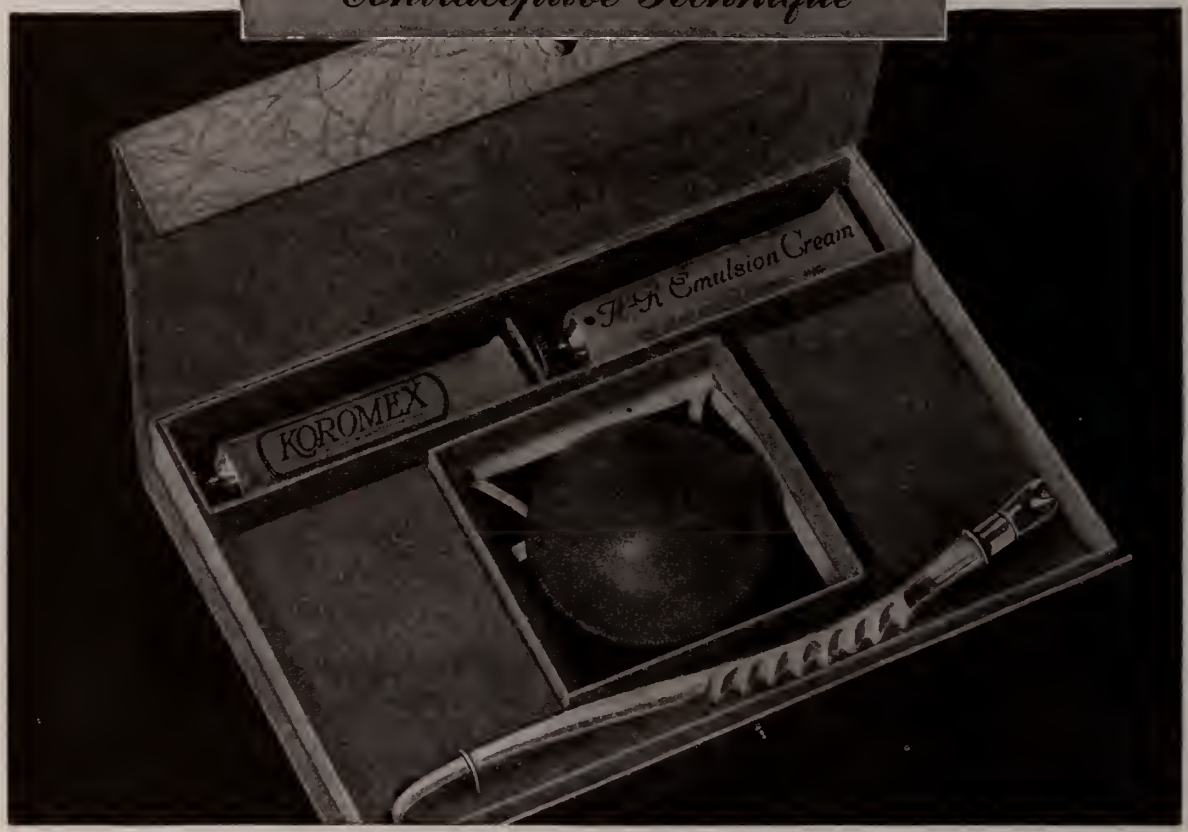
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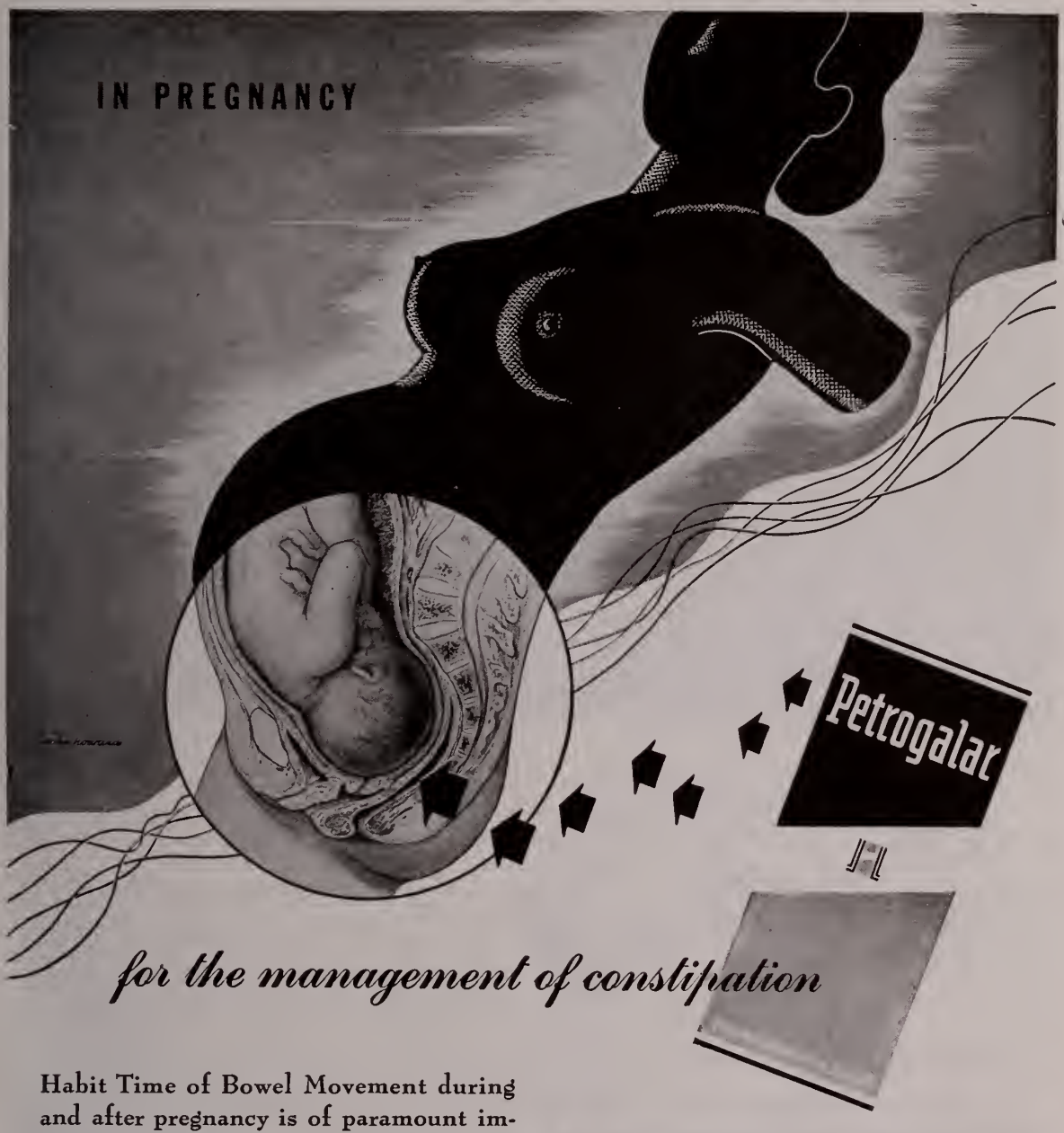
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The Illinois Medical Journal

July, 1943
VOL. 84, NO. 1

Official Journal of the Illinois State Medical Society

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Editorials

A WELL DESERVED TRIBUTE

At the recent annual meeting of the House of Delegates of the American Medical Association held in Chicago June 7, 8, 9, Herman Louis Kretschmer of Chicago was elected as President-Elect of the A.M.A.

For the past ten years Dr. Kretschmer has been Treasurer of the A.M.A., an office which he has filled in a most commendable manner, doing those duties delegated to him and following instructions as prescribed in the By-Laws of the Association. A graduate of Northwestern University Medical School, Dr. Kretschmer early in his professional career, desired to specialize in urology. Within a relatively short time he became urologist at Presbyterian Hospital and attending urologist at the Children's Memorial Hospital in Chicago. For many years he was clinical professor of surgery at Rush Medical College. He has held many important offices in the various special societies with which he has been affiliated. Dr. Kretschmer has contributed freely to the modern literature in the field of urology, and his articles have appeared in many journals throughout the world.

Dr. Kretschmer has been very active in the Chicago Medical Society for a long period of time, acting as its president in 1931, and since that time has always assumed many active roles as chairman or as a member of important committees. A regular attendant at the annual meetings of his own state medical society, he has likewise been very active in its many deliberations.

His many friends, not only in Illinois but throughout the nation, will be in thorough agreement that the House of Delegates of the A.M.A. at the 1943 annual business meeting acted wisely and well in their selection of this man highly qualified for the important office of President-Elect. He will carry on during one of the most critical periods since the organization of the American Medical Association.

Likewise the many members of the Illinois State Medical Society will be pleased to know that this high honor has been given to one of its own members who is indeed highly qualified to assume the important role which will be his during the next two years.

AS RELATED BY THE SURGEON GENERAL

On June 1, 1943, Major General Norman T. Kirk, formerly attached to the Walter Reed Hospital in Washington, was installed as Surgeon General of the United States Army to succeed Major General James F. Magee who has been retired from active duty.

General Kirk was present at the recent meeting of the House of Delegates of the American Medical Association in Chicago and gave an interesting talk on the duties of his office. He also related many experiences in his recent visit to North Africa during the campaign which resulted in the elimination of the Axis troops in that area.

It was most interesting to receive first hand

information on the work of the medical organizations attached to the African forces, and to learn of the outstanding statistical reports which have been released recently. Some 13,000 battle casualties were transported by air 1200 miles to the Atlantic base from which they were brought home by transport.

The death rate in these units was from 2.5% to 3.5% in contrast with the 15% during the first world war of 25 years ago. There were only 12 cases of gas gangrene and 77 cases of osteomyelitis recorded since the landing in North Africa in November, 1942. The sickness rate among the troops is less than at home among the civilian population.

The unusually low mortality rates were attributed to the use of plasma, available everywhere today, excellent technical care, medical and surgical, and the use of the sulfonamide drugs. The General paid a warm tribute to the many medical officers on duty and stated that General Eisenhower and General Clark assured him that the outstanding thing in the campaign was the work of the Medical Department.

Many people have criticized the Government in demanding the large number of medical officers with the armies, believing that fewer men could well care for all casualties and the health of our service men. It is possible that there are times when physicians in the services are not so busy and may be sitting around, but during actual combat, all physicians, nurses, ambulance drivers and others attached to the medical units frequently work 20 hours daily and may not be able to get any rest for 48 hours.

The General stated that physicians in the armed forces are very much like firemen who sit around part of the time playing cards, yet may have to get busy without a moment's warning. General Kirk paid a fine tribute to the medical services in our Army and pointed with pride to the fact that the health of the U. S. Army is better than that of any other nation, and this is made possible only through the generous en-

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listments of physicians throughout the nation.

The presentation of Major General Kirk was of unusual interest to the many state chairmen of the Procurement and Assignment Service for Physicians who were privileged to hear him. There are many communities throughout the country where various groups believe too many physicians have been taken into service and that something should be done to have some of the younger men returned for civilian duty, or others relocated for the duration.

When intensive surveys are made, it usually results in the decision that there are still enough physicians in most of these areas to render adequate war time medical services, although the formerly enjoyed luxury-care may be out for the remainder of the war. Then the old fear that in case of epidemics there would be an insufficient number of physicians to render necessary care, was brought out. With modern methods of treatment, better surgery, use of plasma, blood and blood substitutes, the sulfonamides and many other recent additions to the physician's armamentarium, it seems quite probable that if the unexpected should actually happen, it can be controlled with the reduced medical personnel.

Physicians throughout the nation have responded well to the calls for their services, and one problem in the considerations of Procurement and Assignment Service is the handling of the physicians between 55 and 80 who insist that there should be something they can do to aid in the present emergency. Some of these men above the maximum service age have been relocated and were willing to go anywhere there was actual need for additional medical personnel. Others with part-time or full-time special inclinations have been willing to once more become general practitioners and do work which they have not done for a number of years.

Medicine has once more accepted the challenge, and even though it may be necessary eventually for 50% of the able bodied physicians to join our armed forces, it is the firm belief of the Governing Board of Procurement and Assignment Service, and others working in this field, that it can be so arranged that all civilians may receive adequate wartime medical care.

In Memoriam

PHILIP HEINRICH KREUSCHER, M.D.; 1883-1943

On June 1, 1943, Dr. Kreuscher died at Wesley Memorial Hospital, Chicago, after a short illness. For many years Dr. Kreuscher had been unusually active in the Illinois State Medical Society, acting as its president in 1933. In 1935 he was Chairman of the Council, and for many years had been active as chairman of several, and member of a number of committees of this Society.

Dr. Kreuscher was born in Nebraska, and following graduation from high school, came to Illinois taking his pre-medical work at North Central College, at Naperville. Then he entered Creighton University, at Omaha, and completed his medical course at Northwestern University, Chicago from which institution he was graduated in 1909. Following his interneship at Mercy Hospital, he became first assistant to the late J. B. Murphy, remaining in that position until the death of Dr. Murphy in 1916.

Since 1932 he was assistant professor of surgery at Northwestern, and for a number of years was an instructor in orthopedic surgery at his alma mater. From 1919 to 1932, he was clinical professor of orthopedic surgery at Loyola University School of Medicine. Dr. Kreuscher was a member of many medical and surgical societies through a long period of years, among these a fellow and in 1931, vice president of the American College of Surgeons; Clinical Orthopedic Society; Chicago Surgical Society; Chicago Pathological Society; Institute of Traumatic Surgery; American Association for the Surgery of Trauma; Chicago Medical Society; The American Medical Association and many other organizations. He was attending surgeon to the Wesley Memorial and Passavant hospitals.

From 1932 to 1936, Dr. Kreuscher was Medical Director for the Industrial Commission of Illinois, resigning this position to become Chief Surgeon, Chicago District, for the Carnegie-Illinois Steel Corporation and its subsidiaries, retaining this important position until shortly before his death. He was the author of many scientific articles on various surgical subjects which appeared in many professional journals throughout the country.

Some eighteen years ago, Dr. Kreuscher as chairman of the Illinois State Medical Society Crippled Children's Committee, endeavored to develop a group of crippled children's clinics in various parts of Illinois where urgent need seemed apparent, all to be under the supervision of the local county medical society. The first of these was established in Warren County with Dr. Kreuscher remaining as clinician until he was compelled to resign on account of ill health. He and his committee established a number of similar clinics in Illinois which are still caring for hundreds of crippled children. In this endeavor, it was his policy to schedule some surgical operations during the clinical day, then seeing dozens of patients from several adjoining counties.

Even though unable to resume active work on full time basis, Dr. Kreuscher continued to attend medical meetings, conferences, etc., until he became bedfast, and unable to leave the hospital.

For many years, hundreds of members of the Illinois State Medical Society knew Phil Kreuscher, and admired him for his outstanding work not only in the field of surgery, and especially as a bone and joint surgeon, but also for the active interest he invariably had for his work in the many societies of which he was a member. He was a sponsor of the Post Graduate Clinical Conferences conducted by his state society, and frequently appeared in many parts of the state on these programs, always willing and anxious to do his part.

Dr. Kreuscher was one of the organizers and for many years active in the work of the Cook County Graduate School of Medicine, remaining as an instructor until his health demanded that he take a leave of absence. He was likewise for many years, a member of the surgical staff of Cook County, and the Mercy Hospitals in Chicago.

The family resides at 219 Lake Shore Drive, Chicago. Surviving are his widow, Vera, a son, Philip III, of Pittsburgh, and two daughters, Mrs. John J. Bohnen and Miss Jane, both of Chicago.

The thousands of members of the Illinois State Medical Society, its Council and members of many committees, all join in extending their sympathy to the family.

DESCRIBES A FREAKISH INJURY WHICH MIGHT OCCUR IN ARMED FORCES

A freakish injury to a civilian is described in the current issue of *War Medicine,* published by the American Medical Association in cooperation with the Division of Medical Sciences of the National Research Council, by John A. Siegling, M.D., Charleston, S. C., because, he says, it is one that might be encountered in military practice.

A Negro had been striking a cold chisel with a hammer and while doing so felt sudden pain in his left forearm. On examining the painful area, he discovered a small wound on the inside of his arm, just below the bend of the elbow. As there was free bleeding he left his work immediately and reported to the hospital. An x-ray revealed a small metallic foreign body about 2 inches from the wound in the skin. Steps were taken to remove it while the patient's arm was under a fluoroscope. The patient lay on a table, his arm raised, and preparations were made to start the operation. When the fluoroscope was turned on no foreign body was visible and an x-ray film, made immediately afterward, also failed to reveal it. The patient was asked to return the next day for an x-ray examination of his chest at which time the foreign body was found in the lower part of the right lung. It had been carried through veins to the heart whence it had been pumped into the lung.

When the patient was last seen six months after the accident, he stated he had never experienced any symptoms referable to his chest as a result of the foreign body.

"THIZODRIN"

Intranasal application of the sulfonamides has been attempted by a number of clinicians, usually by nasal insufflation, or as suspensions of the drugs in solution. Turnbull (J.A.M.A., 116:1899, 1941) concluded that the sodium salt of sulfathiazole was particularly advantageous in staphylococcic infections, and subsequently combined an improved, stabilized solution containing the drug with d,l-desoxyephedrine hydro-chloride as a vasoconstrictor. This has been subjected to clinical trial and used in a large group of patients, most of them with satisfactory response. Patients were treated by means of tampons saturated with "Thizodrin" (Sodium Sulfathiazole and Desoxyephedrine, Lilly), and by spraying or dropping the solution into the nose and throat. The product has now been made commercially available.

Correspondence

REPORT OF FIFTY YEAR CLUB

The Fifty Year Club of the Illinois State Medical Society held a luncheon meeting at the Palmer House, Wednesday, May 19th, during the State Medical meeting. Forty-three members were present besides a number of visitors. In fact there were so many visitors that all could not be seated in the private dining room. Interesting addresses were made by Drs. Isaac Abt and Bertha Van Hoosen of Chicago; E. B. Montgomery of Quincy and Carl Black of Jacksonville. Besides the above, several interesting impromptu talks were given by other members and visitors. Dr. Carl Black had a good collection of photographs of Fifty Year Club members which attracted a great deal of interest. It is hoped that all members of the Club, who have not sent photographs to Dr. Black, will do so at once. Dr. Black has the greatest collection of photographs of physicians of anyone in the United States. His fine collection will be turned over to the Illinois State Medical Society and they will be preserved for future historical interest.

The addresses delivered by Drs. Abt, Van Hoosen, Montgomery and Black were of such historical interest that requests have been made for copies with the view of having them published and copies filed with the records of the Illinois State Medical Society. The program was enjoyed by all present and it was the concensus of opinion that these luncheons should be made an annual affair as long as the State Medical Society convenes. The following members were present.

Abt, Isaac
Bacon, C. S.
Burdick, Gordon
Beck, Carl
Bossart, H. S.
Black, Carl
Burroughs, W. M.
Behrendt, Arthur J.
Barnett, Channing
Collins, Rufus G.
Cole, Alvin
Darling, U. G.
Dicus, George
Fringer, Wm. R.
Holmes, R. W.
Handshaw, Anna M.
Hagens, G. J.
Hall, Andy
Kionka, P. B.
Lovejoy, Walter
Lyles, A. R.
Kilbride, J. S.
Knapp, A. A.
Montgomery, E. B.
Macken, Cornelius
Munson, Samuel E.
McCord, M. C.
McCormack, J. L.
Nesbitt, G. W.
Peckardt, Kate E.
Palmer, Walter A.
Ruud, Helga M.
Stewart, E. S.
Stevens, Luther E.
Stanton, S. C.
Thornton, F. E.
Van Hoosen, Bertha
Walker, S. R.
Wood, H. W.
Wernicke, O. G.
Wheeler, Ralph H.
Waterman, S. A.
Yeomans, T. N.

Andy Hall, Chairman

MILITARY SURGEONS TO MEET

The Association of Military Surgeons of the United States will hold its 51st annual convention in Philadelphia at the Bellevue-Stratford Hotel October 21-23, inclusive, according to an announcement by association officers.

The three-day convention will assemble doctors from all the current war fronts where United States forces are fighting, and from the great base hospitals where rehabilitation of the wounded is in progress. They will bring with them information on the latest techniques of wartime medicine and surgery. Numerous forum lectures, practical demonstrations, moving pic-

tures and teaching panels are planned to present the wealth of data to the convention.

Honorary chairman of the convention this year is Rear Admiral Ross T. McIntire, Surgeon General of the Navy. The general chairman is Captain Joseph A. Biello, Medical Corps, USN, who is District Medical Officer of the Fourth Naval District.

The vice-chairmen are Brigadier General George F. Lull, USA, of Washington, D. C., and Commander E. L. Bortz, Medical Corps, USNR, of Philadelphia. Members of the executive committee for the convention include Captain R. H. Laning, Medical Corps, USN; Dr. Stanley P. Reimann, Dr. Gilson Colby Engle, Commander J. L. Tinney, USNR, and Dr. A. Newton Richards.

National officers of the association are as follows:

President, Captain William L. Mann, Medical Corps, USN, National Naval Medical Center, Bethesda, Md.; first vice-president, Col. Lucius A. Salisbury, Medical Corps, New York National Guard; second vice-president, Assistant Surgeon General Warren F. Draper, U. S. Public Health Service; third vice-president, Col. Edgar Erskine Hume, Medical Corps, U. S. Army; fourth vice-president, Col. Irvin Abell, Medical Reserve, USA; fifth vice-President, Dr. Martin L. Cooley, Veteran's Administration; secretary, Col. James M. Phalen, USA (Ret.), and executive secretary, Stuart E. Womeldorph.

ANNOUNCE NEW OFFICERS

At a meeting held at the Municipal Tuberculosis Sanitarium, Chicago, on May 18, the following officers were elected by the Illinois Chapter of the American College of Chest Physicians.

Dr. Minas Joannides, President
3810 Broadway
Chicago

Dr. Fred M. Meixner, Vice President
101 South Adams Street
Peoria

Dr. Julius B. Novak
2800 Milwaukee Avenue
Chicago

ADD REPORTABLE DISEASES

To the Editor,

This is to inform you that effective May 15, 1943, the following will be added to the list of reportable diseases in Illinois:

1. Rheumatic Fever
2. Hemorrhagic Jaundice
 (Spirochestosis Icterohemorrhagic, Weil's Disease)
3. Infectious Hepatitis
 (acute Catarrhal Jaundice)
4. Infectious Keratoconjunctivitis
 (Superficial Punctate Keratitis, Nummular Keratitis)

Your cooperation in bringing these additions to the attention of the medical profession will be appreciated.

Very truly yours,
Roland R. Cross, M.D.
Director of Public Health

THE AMERICAN CONGRESS OF PHYSICAL THERAPY

Will hold its twenty-second annual scientific and clinical session September 8, 9, 10 and 11, 1943, inclusive, at the Palmer House, Chicago. Rehabilitation is in the spotlight today — Physical Therapy plays an important part in this work. The annual instruction course will be held from 8:00 to 10:30 A.M., and from 1:00 to 2:00 P.M. during the days of September 8, 9 and 10, and will include a round table discussion group from 9:00 to 10:30 A.M. Thursday, September 9. The scientific and clinical sessions will be given on the remaining portions of these days and evenings. A feature will be an hour demonstration showing technic from 5:00 to 6:00 P.M. during the days of September 8, 9 and 10. All of these sessions will be open to the members of the regular medical profession and their qualified aids. For information concerning the instruction course and program of the convention proper, address the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago, Illinois.

God be merciful unto us, and bless us and cause his face to shine upon us, that thy way may be known upon earth, *thy saving health* among all the nations.
Psalm 57

Medicine's Role in the War Effort

ARMY SPECIALIZED TRAINING PROGRAM FOR MEDICAL AND PREMEDICAL STUDENTS

At present it is contemplated that training in medicine, dentistry and veterinary medicine will be initiated in all approved schools by July 14. The dates correspond as far as possible to the beginning of a new term except in the schools in which an academic period starts after July 15; in these cases it is asked that the program be initiated at the first of the month.

Baylor University School of Medicine is being omitted until further notice, as is the Harvard School of Dental Medicine (in contradistinction to the Harvard Dental School).

Students in these schools who are called to active duty or are inducted through Selective Service will be assigned with the least possible delay to the unit at the school in which currently enrolled. Preprofessional students who have completed their preparatory training and who have been accepted for matriculation by approved schools are considered as professional students. They will not be required to accomplish their basic military training at the expense of their professional training.

Other preprofessional students, however, with the exception of those in the Enlisted Reserve Corps and those who enter the Enlisted Reserve Corps through induction prior to the end of their current term which ends prior to June 30, 1943, must receive their basic military training prior to assignment to the Army Specialized Training Program if they are inducted later. Since this three months interruption of preprofessional training may mean incomplete preparation for the vacancy for which accepted by an approved school, full advantage in these cases should be taken of eligibility for deferment under Selective Service. If at the completion of their academic preparation they are inducted, either before or after entering medical school, they will be assigned to the unit at the school by which accepted.

Instructions have been issued which will place the responsibility of getting the soldier who requires no more premedical training to the unit at the school by which he has been accepted on the service command commander and the dean of the accepting school. Complete information regarding accepted matriculants will enable the local service command to issue the necessary orders to effect timely assignment of enlisted men residing or stationed in his command to the appropriate unit. He will also request the transfer to the unit in his command from other service commands if necessary.

Medical schools have not yet been asked to mortgage vacancies in the freshman classes to the Army Specialized Training Program. It is hoped, however, to negotiate such assurances for late 1944 if premedical training of enlisted men other than those already accepted is to be undertaken. The Army will want 55 per cent of freshman vacancies, the Navy 25 per cent.

The decision of the Navy that all its medical and dental trainees will receive commutation of quarters and rations complicates the situation, as does the fact that Navy trainees will wear double breasted blue sack suits while the medical student in the Army is clothed in khaki. No one complains that the Navy will not permit its bachelors to acquire a dependent.

The question of quarters and rations is causing great distress among many deans. The present ruling is that Army Specialized Training Program trainees at schools of dentistry, medicine and veterinary medicine will be placed on commutation of rations and quarters when it is manifestly impossible for each institution concerned to provide from its own resources or by lease or contract adequate housing and messing facilities. This puts the entire local problem in the hands of the service command and the dean.

There is a wide variation in textbooks and instruments required. The Army will purchase them through the institution for reissue as required. Tuition is being considered on the basis of nonresident tuition. Various fees such as matriculation and graduation will not be covered: the soldier must pay for his own diploma. Breakage is a government responsibility and, if due to neglect or misconduct, will be deducted from the soldier's pay.

Questions and Answers

Q. How may medical or dental students who are now deferred by Selective Service get into the Army Specialized Training Program? A. Students in good standing in accredited medical or dental schools who are now deferred by Selective Service may request reclassification and voluntary induction by their local boards for the purpose of induction and assignment to the Army Specialized Training Program. At the time of induction, such students should have in their possession letters from the deans of their colleges certifying that they are medical or dental students in good standing. If they are inducted in this manner before the end of the current term, they will be transferred to the inactive reserve and not ordered to active duty until the end of the current school year, at which time it is expected that the Army Specialized Training Program will be operative.

Q. How may premedical or predental students who have been accepted for admission to accredited medical or dental schools and who are now deferred by Selective Service get into the Army Specialized Training Program? A. Prior to the end of the current term not later than July 1, 1943 the procedure will be the same as outlined for medical or dental students. Those who enter the Army through Selective Service after July 1 will be required to take thirteen weeks of basic military training before they are eligible for assignment to the Army Specialized Training Program.

Q. What will be the status of premedical or predental students who are not enlisted reserves by July 1? A. Students not in any Army or Navy Reserve by July 1 may (1) be inducted by Selective Service, as just suggested, in which case they must be prepared to interrupt their college work for basic military training or (2) be continued under deferment by Selective Service until they are medical students, at which time they may be inducted and assigned to an Army Specialized Training Program unit to continue their professional training without the necessity of interruption for basic military training.

Q. Will resignations of Medical Administrative Corps commissions for purposes of induction and assignment to the Army Specialized Training Program be accepted after May 1? A. No time limit has been set for such resignations or enlistments. They will be accepted at any time.

Q. When, where, and how will students who resign Medical Administrative Corps commissions enlist? A. Instructions regarding enlistment are being made by the respective service commands. If such instructions have not been received by the deans, inquiry concerning them should be made without delay.

Q. Will resignations of Medical Administrative Corps commissions be approved for the purpose of enlistment in the Navy College Program? A. No.

Q. Will subsistence allowances be made to medical students on active duty on the Army Specialized Training Program? A. Only in situations in which it is impossible or unpractical to provide group housing and/or necessity. No blanket authorization has been issued for the provisions of subsistence allowances. Each request by a medical or dental school for subsistence allowances for its students will be considered as a special case.

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LIFE INSURANCE FOR NAVAL PERSONNEL

It is now possible for all naval personnel, regardless of date of entry into active service, to

apply for National Service Life Insurance without a physical examination. This opportunity will be available up to Aug. 12, 1943. Personnel of the Navy as a whole are insured only to the extent of about 85 per cent, with a policy average of $7,500. As this form of insurance coverage is for the benefit of each member of the naval service, it is the desire of the Secretary of the Navy that every person be covered by the maximum amount of this insurance provided for them by act of Congress.

★ ★

AUSTRALIA BUILDS HOSPITAL FOR CARE OF AMERICAN SERVICEMEN

According to the New York *Times,* the Office of War Information reported that the government of Australia under its program of reciprocal lend-lease has built a ten story hospital for the use of American soldiers, sailors and marines recuperating from wounds or illnesses suffered in the Pacific. The hospital was built at a cost of about $3,000,000, but its transfer to the American forces entails no payment. The exact location of the center has not been revealed.

★ ★

LIEUTENANT BERLEY A JAPANESE PRISONER

Mr. and Mrs. Guy Berley, 4153 Congress Street, Chicago, have been informed by the navy department that their son, Lieut. Ferdinand Victory Berley, 30 years old, a navy doctor, is a prisoner in the Philippines. Lieutenant Berley had been reported missing since the fall of Corregidor. Earlier he had been stationed at Shanghai, China, and Cavite, in the Philippines, being transferred from a Cavite hospital only a day before Japanese bombs destroyed it. Lieutenant Berley graduated from Northwestern University Medical School in 1939.

★ ★

EFFECT ON GRADUATE NURSES OF THE "HOLD THE LINE" EXECUTIVE ORDER 9328 OF APRIL 8 AND THE REGULATIONS OF THE WAR MANPOWER COMMISSION OF APRIL 18

The War Manpower Commission, Washington, D. C., on May 18 stated that graduate nurses are subject to the terms of the executive order and the War Manpower Commission regulations in exactly the same way as other workers. Nursing is an essential activity. This means that in all War Manpower Commission areas:

1. Nurses may move as freely as before within the nursing profession, so long as the job transfer does not bring a higher salary or wage rate.

2. A nurse who is now employed in an activity other than an essential activity may accept a job in the nursing field at any salary or wage rate.

3. Nurses can transfer to new positions which bring a higher salary or wage rate only if they secure statements of availability from their present employers or from the United States Employment Service.

There is no prohibition in the order or regulation that would prevent any nurses from becoming members of the armed forces.

This is not a complete interpretation of the implications for nurses but simply highlights some of the main points. For information regarding any specific local situation, one should consult the local United States Employment Service office.

★ ★

AMERICAN CASUALTIES IN NORTH AFRICA

The Secretary of War announced that from Nov. 8 1942 to May 15, 1943 the American casualties in the North African military operations, including the initial landings, were 2,184 killed, 9,437 wounded and 6,937 missing, including prisoners of war.

★ ★

THREE TONS OF QUININE GIVEN TO ARMED FORCES

More than 3 tons of quinine, about 9,000,000 doses of 5 grains each, were presented to the armed forces by the American Pharmaceutical Association on May 14, according to the *Evening Star* (Washington, D. C.). The collection of quinine was begun on February 15 by thousands of American druggists (THE JOURNAL, Oct. 3, 1942, p. 377). The gift was received on behalf of the Army and Navy by Chairman May of the House Military Affairs Committee and Admiral Ross T. McIntire, Surgeon General of the Navy, at brief ceremonies at the institution's headquarters, 2215 Constitution Avenue, Washington, D. C. The quinine will be reprocessed in Navy laboratories and made available imme-

diately to men in uniform. Dr. E. F. Kelly, secretary of the American Institution of Pharmacy, estimated the market value of the quinine at $88,500.

★ ★

NURSES' AIDES FOR ARMY HOSPITALS

Volunteer nurses' aides trained under the joint program of the Office of Civilian Defense and the American Red Cross may now be used in army hospitals. The Surgeon General of the Army has requested this service, and the sponsoring agencies have recommended that Nurses' Aides be assigned to army general or station hospitals on request of the commanding officer of the hospital. The aides must receive their training in civilian hospitals as heretofore, however, and service in army hospitals must not interfere with supplying aides to civilian hospitals and health agencies both now and in the event of enemy action, according to Medical Circular No. 28, issued by Dr. George Baehr, Chief Medical Officer, Office of Civilian Defense. This proposed extension of the services of nurses' aides emphasizes the need for increased effort in recruitment in localities which have not yet participated in the program.

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PRECISION IN PLACEMENT OF MEDICAL SPECIALISTS

The War Department announced on May 27 that the Office of the Air Surgeon has placed in accordance with their professional specialties 98.8 per cent of all Army Air Forces medical officers who are qualified as specialists by the specialty boards or colleges of the medical profession; of the remaining 1.2 per cent, the large majority are officers assigned to administrative duty because of special ability in that field, or functioning as executive officers and commanding officers of hospital installations.

This record of accurate utilization of the specialized qualifications of Army Air Forces medical officers has been achieved through constant watchfulness by the Office of the Air Surgeon. A constant check on the assignments of doctors on duty with the Army Air Forces by the Air Surgeon assures continuation of their efficient use.

SOLDIERS GET HIGH QUALITY OF MEDICAL TREATMENT

The Office of War Information announced on May 19 that more than 97 per cent of the naval and marine wounded at Pearl Harbor to March 31, 1943 have recovered and that an analysis of available data on the army wounded shows that recoveries are comparable to naval and marine percentages. Never before in history, the Office of War Information states, has the fighting man had available such medical care and equipment as the United States now furnishes its defenders. The care of the wounded under the American system of military medicine begins with the soldier himself, each one having fastened to his belt a first aid packet, a package of sulfadiazine tablets and a sulfonamide powder. If the soldier is conscious after being wounded he begins to take the sulfadiazine tablets at once, dusts the sulfonamide powder in his wound and uses the first aid packet. In all probability, however, a hospital corpsman has come to his aid before he has a chance to do this. The corpsman administers quickly to the soldier, ties a tag to the soldier's belt showing what treatment has been given, fixes a bit of gauze to a bayonet or stick to mark the soldier's location, and then goes forward with the attack. Litter bearers then carry the wounded soldier to a battalion aid station farther back, where he is attended by physicians and cared for until he can be removed in an ambulance or other conveyance still farther back to the collecting stations. Here the various cases are classified and the more seriously wounded taken to field or evacuation hospitals usually from 5 to 7 miles from the fighting front. The field hospitals are mobile but equipped with the most modern supplies and staffed by expert surgeons with specialists available for all kinds of injuries. Farther back are the large general or base hospitals, usually several hundred miles from the battle area and the equal in equipment to the most elaborate city hospitals. Here the wounded may remain until fully recovered and returned to duty or they may be sent to hospitals in the United States. Some wounded men in distant battlefields have reached the homeland faster than the report of their having been wounded. A severely wounded soldier was brought home for treatment from Egypt by ambulance plane in seventy-two hours; others

have been flown to the homeland from the Far East, India and Africa. Should medical supplies be delayed in reaching the battle area, American doctors have been trained to perform their duties with such equipment as is at hand. Some ships carrying medical supplies for the North African campaign were torpedoed and yet a system of caring for the wounded was established right from the beaches of the Mediterranean; that this method also was effective was shown by the hundreds of recoveries from wounds.

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DENTAL REHABILITATION

Owing to the recent lowering of dental standards for enrollees, the Navy Department will undertake to rehabilitate, dentally, personnel requiring prosthetic dental replacements. At recruit training depots throughout the United States, laboratories will be established to carry out this extensive program. Many additional dental officers as well as enlisted personnel skilled in the field of prosthetic dentistry will be required. It is expected that additional building facilities will soon be erected to house these clinics and that present existing dental facilities at these centers will be expanded.

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CONSULTANTS STUDY BATTLE CASUALTIES

Dr. Walter E. Dandy, professor of neurologic surgery at John Hopkins Hospital, Baltimore, and Dr. Meyer Wiener, professor of clinical ophthalmology at Washington University School of Medicine, St. Louis, both members of the Board of Honorary Consultants to the Surgeon General of the U. S. Navy, are on the West Coast observing battle casualties in the navy hospitals and appraising treatment methods. Dr. Dandy is accompanied by Capt. Winchell McK. Craig (MC), U.S.N.R., chief of the surgical service, Naval Hospital, Bethesda, Md.

★ ★

AVIATION MEDICAL EXAMINERS

A class of Aviation Medical Examiners graduated on April 22. The didactic portion of the course was conducted at the School of Aviation Medicine, Randloph Field, Texas, of which Brig. Gen. Eugen G. Rienartz, A. U. S., is commandant. The practical portion of the course was conducted at the three Army Air Forces classification centers. The list of graduates from Illinois are: Hanford L. Auten, 1st Lieut., Chicago; Edward S. Baxter, 1st Lieut., Western Springs; Isidore Brill, 1st Lieut., Champaign; James H. Britton, 1st Lieut., Moline; Herbert P. Dexheimer, 1st Lieut., O'Fallon; Joseph J. Eckert, 1st Lieut., Chicago; Gilbert J. Edwards, Captain, Pinckneyville; Walter Gaines, 1st Lieut., Chicago; Philip C. Hemming, 1st Lieut., Elgin; David S. Koransky, Captain, Chicago; Herman B. Lander, Captain, Chicago; Otis H. Law, 1st Lieut., Pontiac; Alfred N. Marshall, 1st Lieut., Chicago; Clement J. Michet, Captain, Chicago; John S. Moffatt, Major, Rantoul; Joshua Oden Jr., 1st. Lieut., Chicago; William E. Rapp, 1st Lieut., Chicago; Vernon C. Voltz, 1st Lieut., Rockford (Winnebago); Frederick E. Walker, 1st Lieut., Chicago.

★ ★

REDUCE NUMBER OF DOCTORS ALLOTTED TO CERTAIN UNITS

The War Department has ordered that as a general policy and in order to place the medical officers available where they are most needed, regimental and separate units, such as battalions which now are authorized to have two medical officers by the Tables of Organization will be provided only with one medical officer while in continental United States. Before such units go overseas, the number of medical officers will be increased to Tables of Organization strength.

All Tables of Organization which include medical and dental officers will be revised to show, in the case of attached medical and dental officers, that they will be furnished only as required and available in continental United States. All medical and dental officers designated in Tables of Organization as captains or as first lieutenants will be shown as authorized in either rank, no specification being made.

The prevalent opinion that the finding of active tuberculosis in a minimal stage warrants an excellent prognosis is true only if qualified by the statement — "if adequate treatment is taken".

The "early discovery" of pulmonary tuberculosis, by which is meant discovery of the disease in a minimal stage, is almost useless unless it can be followed by adequate treatment. Samuel C. Stein, M.D. Pub. Health Nursing, Mar. 1943.

Original Articles

DISTURBANCES OF THE PERIPHERAL CIRCULATION — CONSIDERATIONS ON THE DEFINITION OF SHOCK

W. D. Gatch, M.D.,
INDIANAPOLIS

Your secretary asked me to talk on some timely subject of interest to men in all lines of practice. I have selected the well-worn subject of shock. The war has made this timely, and much discussion has not destroyed its interest. It remains controversial, confused and important. Hazy ideas about it are still prevalent.

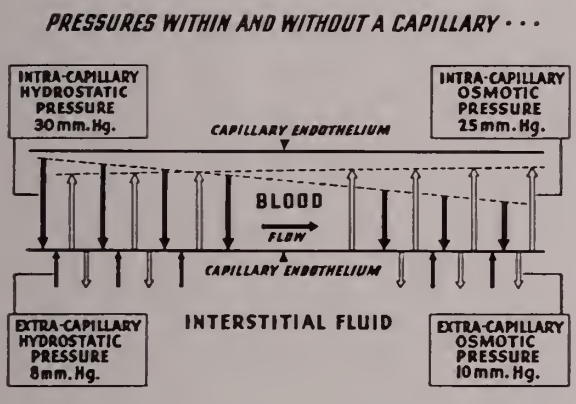
A great cause of confusion in any discussion of shock has been the lack of a clear definition to which all authorities agree. The term was first used to name a symptom complex observed after trauma. Its use has gradually been extended till it is now loosely applied to any symptom complex which more or less resembles this. Writers use the expression, "hemorrhagic shock," "burn shock," "traumatic shock," etc. This leads the reader to think that these variations of shock are separate entities. This idea, which is true to a limited extent, often prevents diagnosis and effective treatment of the fundamental trouble which needs correction. The definition of shock in general use is still vague and is based entirely on clinical symptoms. The definition given by Meltzer[1] in 1908 for surgical shock, is often quoted: "A state of general apathy, reduced sensibility, extreme motor weakness, great pallor, very rapid, small pulse, thready, soft arteries, irregular, gasping respirations and subnormal temperature." This definition is not applicable to all forms of shock now recognized. For example, patients suffering from certain of these may have fever or cyanosis. Shock, in the common usage of today, means a state of profound circulatory depression, not due to heart failure, which develops rapidly, from any cause, in a relatively healthy person. Experimental workers regard a blood pressure of 70 or below as a characteristic of the shock state. Concentration of the blood occurs in most, but not all, conditions to which the name is applied.

Another great cause of confusion has been failure of writers on shock to use well established knowledge of the capillary circulation in the interpretation of their observations. This knowledge, as I hope to show, clarifies the entire subject. Mann[2] was first to point out that surgical shock is due to a disturbance of the capillary circulation. Experimental and clinical observations on the nature of other conditions called shock, have gradually shown that most, if not all of them, are due to this cause. The argument for this conclusion is based entirely on the mechanism of the capillary circulation. Permit me to recall to your minds some pertinent facts about this.

The Peripheral Circulation. The exchange of material between the blood and tissue cells, which is the entire purpose of the cardio-vascular system, is accomplished by the capillaries. The discovery of how this exchange is carried on ranks in importance with the discovery of the circulation itself. It was once thought to be managed largely by a vital force residing in the

Oration in Surgery, presented before the 103rd Annual Meeting of the Illinois State Medical Society, Chicago, May 19, 1943.

capillary endothelium. Starling[3] in 1894 found that the blood proteins exert an osmotic pressure. This discovery enabled him to account completely for the exchanges in question by the opposing action of hydrostatic and osmotic forces. The hydrostatic pressure within the capillary tends to force water and solutes through its wall (filtration); and the osmotic pressure within it has the opposite effect (absorption). Filtration occurs usually through the arterial segment of the capillary, where the hydrostatic pressure exceeds the osmotic pressure, and absorption through its venous segment, where this relation is reversed.



Two extra-capillary forces affect these exchanges — 1) The osmotic pressure of the interstitial fluid helps filtration and opposes absorption; 2) The hydrostatic pressure of the tissues has the opposite effects. These forces, under normal conditions, neutralize one another, because they are about equal. They may have, however, under abnormal conditions, a marked effect on capillary function. The walls of the capillary are almost impermeable to protein molecules, but are readily permeable to water and solutes. Solutes are so quickly diffused from blood to interstitial fluid that they can cause only a transient difference in osmotic pressure between the two.

About 70% of the body weight is water. This can move freely when acted upon by osmotic and hydrostatic forces, because it is not held in chemical combination. Water is the sole medium which transports materials from one part of the body to another. It is essential to the life and activity of all cells. We may consider function of the peripheral circulation to be the transport of water and solutes to meet the demands of the tissue for food, oxygen and other substances, and for the removal of soluble waste products. Particulate matter and matter in the colloid state are removed by the lymphatics.

The capillaries in the muscles of a man of average size if placed end to end would stretch several times around the globe. The total area of the blood capillary endothelium is greater than that of a football field. Less than a pound of blood protein, acting over this vast area, suffices to maintain the proper concentration of the blood.[4]

Starling's discovery has been extraordinarily useful in clinical practice. It explains the findings in such diverse conditions as varicose ulcer, edema, bowel obstruction and nephrosis. It explains, also, as I hope to show you, the phenomena of the various forms of shock. If this idea is correct, these findings should be explainable by derangements of the capillary circulation which are theoretically possible. The following is a list of such derangements:

1. Derangements due to injury of the capillary endothelium which makes it permeable to the blood protein molecules.

2. Derangements due to dehydration.

3. Derangements due to hemorrhage.

4. Derangements due to increase of hydrostatic pressure in the capillary (chief cause, venous obstruction) and to decrease of the same (chief causes, heart-failure and arterial obstruction. These have but little relation to shock).

5. Derangements due to increase of the hydrostatic and/or osmotic pressures of the extra-capillary fluid. These are always secondary to other derangements.

It is evident that primary disturbances of the peripheral circulation, which are theoretically possible, fall into three groups:

Group I — Disturbances due to endothelial injury

Group II — Disturbances due to hemorrhage or dehydration

Group III — Disturbances due to venous obstruction

Much of the confusion which attends the discussion of shock can be done away with by the application of the foregoing considerations.

All forms of shock of clinical importance can be fitted into one or another of the three possible groups.

FORMS OF SHOCK DUE TO ENDOTHELIAL INJURY — BURNS, INFECTION, ANOXIA, ENDOTHELIAL POISONS

Burns. — I regard as an established fact that the symptoms following extensive burns are due to injury of the capillary endothelium. The evidence for this seems conclusive:

1. The blood after burns is concentrated and has a low content of blood proteins. The hematocrit reading may be as high as 80%. All the blood protein — albumin, globulin and fibrinogen — escape from capillaries injured by heat.[5] The burned patient has the symptoms of blood concentration from any cause — cyanosis, tachycardia, low blood pressure and generalized edema.

2. Treatment by withholding water and giving plasma — measures which oppose concentration of the blood — has been highly successful.

3. The opposing theory of toxemia does not account for the phenomena and gives bad results when applied to treatment.

Efforts to fix or destroy hypothetical toxins in the burned tissues have been unsuccessful. Efforts to wash the toxins out of the circulation by the administration of water are disastrous. Water accelerates the escape of proteins from the blood stream and thus aggravates the trouble. No one has been able to demonstrate the presence of specific toxins in fluid obtained from burned tissues. It has been shown by Kabat and Levine[6] that in some cases death from burns is due to capillary emboli. This is a valuable contribution to knowledge, but it is preposterous to say that death from this cause is due to toxaemia. Trusler has demonstrated that infection was the cause of the death of several burned patients who, at the time of death, had no hemoconcentration.

4. The symptoms seen after burns are what would be expected from Starling's hypothesis to occur after injury to a wide extent of capillary endothelium.

Edema is first seen in the burned areas. It later appears in areas uninjured by heat. The patient at first has a normal color. He later becomes very cyanotic. This chain of events can be explained by Starling's hypothesis as follows:

1. The heat causes serious injury to a wide extent of capillary endothelium.

2. Blood plasma escapes in large quantities into the tissues around the injured capillaries, thus producing edema of the burned area.

3. The loss of protein by the blood at the site of the injury gradually lowers the osmotic pressure of the blood till it is no longer able to absorb water which has passed from the capillaries in unburned parts of the body. Generalized edema then occurs. This process leads to concentration of the blood and cyanosis. In this connection Trusler has pointed out that the best treatment of the severly burned patient demands that he be given plasma as soon as possible after the injury and before any sign of hemoconcentration is present. By this means the bad effects of hemoconcentration can be prevented. It is to be noted that the edema of the heated tissues raises their interstitial pressure and thus helps prevent the loss of water and protein from the injured capillaries. The tissue pressure can also be increased by the application of external pressure to the burned area.

2. *Widespread Infection, Especially Peritonitis.* — The blood picture with widespread peritonitis is the same as that with burns. The hematocrit reading may be 75-80%, the red cell count as high as 8,000,000 cells. At autopsy quantities of albuminous fluid are found in the peritoneal cavity and there is great edema of the subperitoneal tissues. The patient will also have marked cyanosis and generalized edema. Since the area of the peritoneum equals that of the skin, it is easy to see that the endothelial injury done by general peritonitis is the same as that done by a burn of the entire skin. Widespread infections of any part of the body may have the same effects as peritonitis.

The idea that the clinical symptoms of severe infection are due to toxaemia is still universal. There is no doubt that toxaemia is a factor in their causation, but it is erroneous to regard it as the sole factor. This view is a bar to effective treatment. A consideration of the local effects of infection makes this matter clear.

No fact of pathology is better established than that bacterial toxins injure capillary endothelium. It is evident that when this injury involves a vast area of endothelium the loss of protein material by the blood will be great, and

that the systemic effects will be the same as those following a comparable injury by heat. It follows from this that concentration of the blood due to infection can be opposed by the same measures that have proved efficient in combating this effect of burns; namely the withholding of water and the administration of an adequate quantity of blood plasma. The results which we have obtained by treating patients with advanced appendicitis in this manner have demonstrated the validity of this principle.[7]

The edema and capillary thrombosis caused by bacterial toxins slow or bring to a standstill the circulation in the infected tissue and hinder the passage of bacteria and toxins into the general circulation. Menkin[8] has shown that this entry is in inverse relation to the violence of the toxin. Thus, the staphylococcus, which produces a violent toxin, produces an infection which tends to remain localized, while the streptococcus, which produces a milder toxin, tends to produce a widespread infection.

We may consider that the systemic efforts caused by an infection are due, (1) to the loss of protein material by the blood; (2) to the systemic effects of bacterial toxins, supplemented in certain cases by the entry of bacteria into the blood stream. It behooves us to combat both of these effects of infection. In many cases the first effect is the more dangerous of the two.

Endothelial Poisons — Certain of these, as histamine, have effects similar to those of heat or infection, but the discussion of these would lead us too far afield.

Anoxia — This is a common and very important cause of endothelial injury. Landis[9] showed that it damages the capillary endothelium so that its function as a semi-permeable filter is destroyed. My interest in this matter was developed by a search for the cause of hemoconcentration which follows long continued distention of the stomach and intestine. This led to the conclusion that anoxia is the cause. The mechanism of the hemoconcentration in this case is as follows:

Distention of the stomach or intestine elevates the diaphragm and reduces the negative pressure within the thorax. Under these conditions the blood cannot be properly aerated by the lungs. The resulting anoxia damages the capillary endothelium so that it can no longer prevent the escape of protein material from the circulation. The blood then is unable to absorb the interstitial fluid and becomes concentrated. Our studies showed that the damage done the endothelium by anoxia is of a far less serious nature than that done it by bacterial toxins or heat. Following anoxia the blood albumin, which has relatively small molecules, escapes; whereas, following the damage done by heat or by bacterial toxins, the larger molecules of globulin and fibrinogen escape also. In contrast to the injury done by heat and bacterial toxins, the injury done by anoxia is readily repaired by the restoration of a normal supply of oxygen, unless the anoxia has been too greatly prolonged. Exactly the same degree of hemoconcentration caused by bowel distention can be brought about by prolonged limitation of the supply of air to the lungs. Anoxia is the cause of most of the so-called toxic effects of the less dangerous anaesthetics. The anoxia which may follow rupture of the diaphragm or crushing injury to the chest can also cause hemoconcentration. Distention of the stomach may cause death from anoxia. If extreme, it can cause death of the experimental animal from asphyxia alone, and without hemoconcentration, in as short a time as two hours. A less severe degree of distention will cause death in six to eight hours with marked concentration of the blood.

It behooves the clinician to keep a sharp lookout for anoxia. Treatment of the more severe forms demands the injection of blood plasma in addition to the administration of oxygen. We have found in the experimental animal that the normal concentration of the blood can be preserved in the presence of well marked anoxia, by the administration of adequate quantities of plasma.

FORMS OF SHOCK DUE TO DEHYDRATION AND HEMORRHAGE

3. *Dehydration* — If the body is deprived of water or loses excessive quantities of water by sweating, vomiting, etc. then the concentration of proteins in the blood will be increased and the absorption of water from the tissues accelerated. Dehydration, unless it is extremely severe and prolonged, apparently does not cause endothelial injury.

The skin and mucous membranes of the dehydrated patient are hot, loose and dry and he has a peculiar brickdust color which is almost diagnostic. He has recession of the eyeballs and decreased intra-ocular tension. The osmotic pressure of his blood is normal while the hydrostatic pressure in his capillaries is probably less than normal. His capillaries, therefore, rapidly absorb interstitial fluid. His hematocrit reading is somewhat elevated, but never reaches the heights seen in patients who have suffered extensive endothelial injuries.

Mc Iver[10] stated the principle which governs the hydration of the body. This is that the quantity of water in the body is governed by the quantity of electrolytes (90% na Cl). In other words, the osmotic pressure of the body fluids must always be kept normal. In water intoxication it is subnormal.

4. *Hemorrhage* — If whole blood escapes from the circulation, the blood remaining behind will at first be of normal concentration. If hemorrhage is considerable it will cause a lowering of the hydrostatic pressure in the capillaries so that the filtration of water from them will be diminished, whereas absorption by them of water from the tissues will be normal. Under these conditions the blood will be diluted. Hemorrhage seems to be as little harmful to the capillary endothelium as dehydration.[11]

5. *Venous Obstruction.* — Venous obstruction is probably the sole cause of clinical importance which raises intracapillary hydrostatic pressure. The anoxia which goes with it may so damage the capillary endothelium that it will permit the escape of blood proteins. The presence of these in the interstitial fluids accelerates the passage of water from the capillary. Venous obstruction is therefore an extremely efficient cause of hemoconcentration.

Traumatic Shock. — Mann, in 1914, pointed out that in practically all recorded experiments on traumatic shock, the method of its production had been traumatization of the abdominal viscera. He reached the conclusion that "no degree of sensory stimulation can reduce an experimental animal to a state of shock provided its abdomen is not opened and provided all hemorrhage is prevented." In many experiments repeated since that time the animal has been reduced to shock by severe trauma of one or more of its extremities. In a typical experiment of this kind the amount of fluid withdrawn from the circulation is estimated by the increase in weight of the traumatized limb. What happens in the traumatized limb needs to be scrutinized. It is evident that the trauma causes rupture of arteries and veins, from which blood is extravasated into the tissues. It is also evident that this extravasated blood will produce venous obstruction and thereby cause[1] increased filtration from the capillaries drained by the obstructed veins, in addition to the above mentioned loss of blood albumin from these capillaries because of damage to their endothelium by anoxia. The total effect, therefore, is due to a combination of causes, — hemorrhage, venous obstruction and endothelial damage. This experiment is therefore incapable of giving results which indicate the relative importance of each of these factors. Its results do, however, correspond to those seen clinically after crushing injuries. Traumatic shock following crushing injuries, is explainable by the results of venous obstruction and hemorrhage. Traumatic shock caused by manipulation of the intestines is due to traumatic peritonitis. The theory of Cannon that the shock syndrome observed after trauma is due to toxins absorbed from the traumatized tissues has been disproved.

Differential Diagnosis. — The differential diagnosis between central and peripheral failure of the circulation is usually easy. About the only exception to this statement is the diagnosis between circulatory collapse after coronary occlusion and that which follows any of three upper abdominal catastrophies — rupture of a peptic ulcer, acute hemorrhagic necrosis of the pancreas and mesenteric thrombosis. The most experienced clinician may not be able to make a differential diagnosis at once. The pain of all these conditions may be so agonizing that a reliable history cannot be obtained. The most important clue to the cause of the trouble is given by the condition of the abdominal muscles. If these are fairly soft, the trouble is probably coronary occlusion; if they are of board-like rigidity it is probably an abdominal lesion. Laboratory studies may or may not be helpful. It must be remembered that venous obstruction due to heart failure causes failure of the peripheral circulation in the manner already explained.

Peripheral failure due to dehydration, hemorrhage or capillary damage offers no difficulty to diagnosis. Each of these conditions give the patient a fairly characteristic color. This is brickdust with dehydration, pale with hemorrhage and bluish with capillary injury. Edema is not present with dehydration and hemorrhage and is present with capillary injury. The hematocrit reading is moderately elevated with dehydration; normal at first, and then lower with hemorrhage; markedly elevated with capillary injury. Finally, the clinical history of the case is usually sufficient to indicate clearly which form of trouble is present.

Treatment. — The cause of each form of peripheral circulatory failure clearly indicates the proper treatment — water and glucose or water and salt, as the special case demands, for dehydration, blood for hemorrhage, and plasma or other materials which elevate the osmotic pressure for capillary injuries. It needs to be re-emphasized that any patient suffering from extensive capillary injury should be given no water at all, or water in very limited amounts. It aggravates his trouble. He has plenty of water in the inter-cellular spaces of his tissues. What he needs is something which will draw this water into his blood.

Wakim[12] has recently demonstrated that the practice of heating patients in shock is harmful to them. It increases their loss of energy at a time when they need every bit of it to keep alive. They do best when kept at about room temperature.

General Conclusions. — The word shock has been applied in the foregoing discussion to any and all forms of circulatory failure in which the primary seat of trouble is the capillary circulation. Moon[11] would limit the use of the word to peripheral circulatory failure due to endothelial damage, and makes a sharp distinction between the effects of hemorrhage and those of endothelial injury. I am in entire sympathy with this point of view, but am convinced that the use of the word with a broader and looser definition is too well established to be changed. Perhaps the best that can be done at present is to define it as primary peripheral circulatory failure from any cause. In clinical practice we would do well to avoid the use of the word and instead speak of peripheral circulatory failure due to a definite cause or combination of causes. This practice would aid accurate diagnosis of the primary cause of the trouble and proper treatment to combat or remove this cause.

REFERENCES

1. Meltzer, S. J.: The Nature of Shock. Arch. Int. Med. 1: 571-588, 1908.
2. Mann, F. C.: The Peripheral Origin of Surgical Shock. Johns Hopkins Hosp. Bull., 25:205-212, 1914.
3. Starling, E. H.: On the Absorption of Fluids from the Connective Tissue Spaces. J. Physiol., 19:312, 1895-96.
4. Krogh, A.: The Anatomy and Physiology of the Capillaries. Yale University Press, 1929.
5. Trusler, H. M., Egbert, H. L., and Williams, H. S.: Burn Shock. The Question of Water Intoxication as a Complicating Factor: Blood Chemical Studies and Report of an Extensive Burn Treated by Repeated Transfusions of Blood and Blood Plasma. J. A. M. A. 113:2207-2213 (Dec. 16) 1939.
6. Kabat, H. and Levine, M.: Capillary Emboli as a Lethal Factor in Burns. Science, 96:476 (Nov. 20) 1942.
7. Gatch, W. D., Gery, R. E., and Ballenger F.: Management of Advanced Appendicitis in Childhood. J. A. M. A. 114:1839-1842 (May 11) 1940.
8. Menkin, Valy: Inflammation and Bacterial Invasiveness. Am. J. M. Sci., 190:583 (Nov.) 1935.
9. Landis, E. M.: Micro Injection Studies of Capillary Permeability: III. The Effect of Lack of Oxygen on the Permeability of the Capillary Wall to Fluid and to Plasma Protein. Am. J. Physiol., 83:528-542, 1928.
10. McIver, M. A. and Gamble, J. L.: Body Fluid Changes Due to Upper Intestinal Obstruction. J.A.M.A., 91: 1589, 1928.
11. Moon, V. H., Morgan, D. R., Lieber, M. M., and McGrew, D.: Similarities and Distinctions between Shock and the Effects of Hemorrhage. J.A.M.A., 117:2024 (Dec. 13) 1941.
12. Wakim, K. G.: The Effect of External Temperature on Shock. J.A.M.A., 121: pp. 903-907 (March 20) 1943.

WAR DEPARTMENT ORDERS EXERCISE FOR HEALTH

The War Department has ordered, according to the *Army and Navy Journal,* that, whenever possible, the duties of officers whose work is confined primarily to offices will be so arranged that each such officer will be allowed at least one-half day a week other than holidays and Sundays for physical exercise in the interest of good health and mental fitness. Exercise in the open air or in a well ventilated room will be taken regularly by all officers not actually participating in active outdoor instruction of troops.

NOTE: Publication of the minutes of the first session of the House of Delegates in this issue makes it necessary to omit the sections on Medical Economics and Clinicopathological Conferences.

House of Delegates

FIRST SESSION

(Tuesday Afternoon, May 18, 1943)

The first session of the House of Delegates of the Illinois State Medical Society was held in the Palmer House, Chicago, on Tuesday, May 18, 1943.

The meeting was called to order at 3:40 P.M. by the President, Dr. Edward H. Weld, Rockford.

THE PRESIDENT: The first order of business is the report of the Credentials Committee.

DR. E. P. COLEMAN, Canton: We have registered from downstate 75, Chicago Medical Society 46, and 16 members of the Council, making a total of 137. I move you, Mr. President, that this constitute the voting strength of the House of Delegates at this time. (Motion seconded by Dr. C. E. Wilkinson, Danville, and carried).

THE PRESIDENT: The next order of business is the approval of the minutes of the last annual session as published in the July, 1942 issue of the Illinois Medical Journal.

DR. MATHER PFEIFFENBERGER. Alton: I move that the minutes be approved as published in the July, 1942 issue of the Illinois Medical Journal. (Motion seconded by Dr. C. E. Wilkinson, Danville, and carried).

THE PRESIDENT: We are going to divert from our usual schedule to hear a talk by a guest which is the Chairman of the Illinois State Nursing Council for War Service, Mrs. Ada R. Crocker.

MRS. CROCKER: Mr. President and members of the House of Delegates of the Illinois State Medical Society: I am here to give you a brief progress report on the activities of the Illinois State Nursing Council for War Service. In the February number of the Illinois Medical Journal there appeared a brief article explaining the organization plans to correlate and utilize the nursing activities of this country for war services. Today I would like to tell you what this Council is doing to meet the nursing situation in this state.

The Illinois State Nursing Council is divided into eleven district associations, each of which has an active nursing Council which includes doctors, hospital administrators, civic minded lay people and nurses. We must meet our quota of nurses for military duty and we are also deeply concerned that the health needs of the civilian population be met. I think you would be interested in knowing that on March 31, 30,825 nurses were serving with the Armed Forces. It is expected that 42,500 additional nurses will be needed by the Army and Navy by July, 1944, so you see there is quite a big problem. In Illinois, Wisconsin and Michigan, which constitutes the Sixth Service Command, 2,000 nurses are needed each month by the Army. I think you will be interested in knowing that the Army has liberalized its policy and is now accepting married nurses for military duty up to the age of forty-five. Previously, it would not accept nurses beyond the fortieth birthday.

The National Nursing Council for War Service has published a leaflet called "Priorities for War Nurses", the purpose of which is to serve as a guide to employing agencies to help determine where nurses are most needed. We are not advocating that every nurse go into military

service. We are very much concerned that nursing on the home front be safeguarded and that nurses accept responsibility for services in their own locality.

In January the United States Public Health Service sponsored a second survey of registered nurses. A double postcard questionnaire was used. Through Headquarters there were sent to registered nurses in Illinois 28,608 postcards; 19,625 cards were returned; 4,019 replies were received from nurses not now actively engaged in nursing. Plans are under way to have refresher courses throughout the state. These courses are intended to help the nurse who has been inactive to become familiar with the newer medical procedures in order to become useful. The members of the Illinois State Medical Society can be of great service to the public by requesting retired nurses to make their services valuable. Sixty-five thousand additional students to be admitted to the nursing schools in the United States is the goal for the school year, 1943-44. The United States Office of War Information has placed the full force of its resources behind the recruitment program and is working closely with the Sub-Committee on Nursing of the Health and Medical Committee of the Office of Defense Health and Welfare Services. The American Hospital Association has had a hand in the program and on May 12, student recruitment was the principal part of Hospital Day activities. The recruitment program has campaign status during May. Radio programs, posters and retail stores and elsewhere, vocational talks in high schools and colleges are some of the activities. The WAACS and the WAVES have had recruitment campaigns and now the O.W.I. is giving the nursing campaign an official backing. We have organized a speakers' bureau throughout the state of Illinois. Most of these speakers are nurses. Over 37 P.T.A. groups have had speakers and over 1,000 people have had vocational talks and 33,000 high school students have attended those talks. That will give you some idea of the people our speakers' bureau is trying to reach.

The Medical profession will feel reverberations from this intensive campaign and we seek your cooperation in advising well prepared young women to prepare for nursing and to select a nursing school which will give sound preparation and wide experience. Federal assistance for tuition and scholarships is available in many schools for young women in need of financial aid. Information relative to financial assistance is available through the Illinois State Nurses Association.

A bill to provide for the training of nurses for the Armed Forces, governmental and civilian hospitals, health agencies and war industries through grants to institutions providing such training and for other purposes was passed by the House on May 14 and should come before the Senate next week.

Members of the Reserve agree to make their services available after a training period of twenty-four to thirty months, to military forces, to other federal agencies and civilian nursing services for the duration and six months thereafter. The members will be classified as Junior Grade, Senior Grade and Cadet. Suitable distinctive insignia and uniform will be provided and a monthly stipend will be paid while in training.

An aroused and informed public will not only recognize the need for an increased number of nurses but will also cooperate in diminishing to the greatest degree all "luxury nursing". The physicians and other professional co-workers can help in this educational program. We bespeak an interest and assistance.

THE PRESIDENT: We are going to divert from our regular order of business to hear a five minute talk by Mrs. Jennette Thielens Phillips from the Speakers' Bureau of the American Red Cross.

MRS. JEANETTE THIELENS PHILLIPS: Dr. Weld, Members of the House of Delegates of the Illinois State Medical Society: I feel it is like bringing coals to Newcastle to say anything to this body about the Red Cross work with blood plasma. You probably know more about it than I do technically but you may not know how the unit is operated. You probably know that this is the greatest advance in our scientific age, the discovery of plasma. The first time plasma was used in warfare was when the transport Kearney was torpedoed by a submarine in the north Atlantic, and from and undisclosed air base, which was probably

near Alaska, plasma was dropped on the deck of the Kearney. Eighteen minutes after the first bomb fell at Pearl Harbor the Red Cross had set up nine emergency hospital units of fifty beds each. In the first eight hours, 1800 units of plasma was administered and saved the lives of sailors who were literally blasted into seas of burning oil. The next week 800 units were used, and since then there has been a steady use of plasma.

The Chicago Chapter Blood Donor project was opened February 2, 1942 and in the intervening time, a little over a year, we have collected 1,054,620 pints of blood; 5,000 pints a week is Chicago's quota. For the last ten weeks we have made our quota and a little over. Last week we collected 6,506 pints and we are proud of it. I want to tell you that Chicago leads all the Red Cross chapters in repeat donors. Seventy per cent of the people who come in voluntarily to give blood are coming back a second to eighth time. We are now having eight time repeat donors. We have three mobile units that operate out of the Chicago Chapter. The greatest number of donors that we have taken in any one day is 210. We require 150 applicants before the mobile unit will go out, because there are many rejections and we want at least 130 a day for the mobile unit. It is used in suburban towns and in the factory regions where workers cannot be released to come to a fixed unit. It has been booked up weeks in advance. We are going out for all the month of June to the Stock Yards to take in all the packing houses. That was arranged by members of the Speakers' Bureau.

One other important thing that I wish to say is, while you are here visit the blood donor center at 5 S. Wabash Avenue. It is an inspiring sight. Everyone of those people has come in of his own free will to give blood. There are housewives, cripples, prosperous looking business men, laboring men in blue shirts and overalls. There are people who come in because they know what it means; we have sailors, soldiers and marines who come in to give blood. One sailor said, "Last August in the Solomons I had a blood transfusion which saved my life. I've come to pay my debt."

Another boy came in before he was inducted saying, "I thought I would make sure there was some blood on hand for me if I needed it."

I wish you could see how the plasma is packed. It is placed in a little cardboard box about ten inches square; there are two metal cylinders, one containing a glass jar with the plasma and the other a glass jar of distilled water, and rubber tubes and needles, all the apparatus needed to give the transfusion. The directions are printed in English with a little diagram. Anyone who can read English can set up the apparatus and give a blood transfusion. We have had reports from the front that that very thing has been done, that plasma has been dropped from airplanes on little deserted groups of American soldiers in the Tropics and they have been able to save the lives of their buddies right on the spot. The Surgeon-General of the Army, General J. C. Magee, reports that after the fighting on Guadalcanal less than one-half of one per cent of the wounded were dying as a result of plasma and the sulfa drugs. Plasma is being stored in Utah for possible need on the west coast.

The people must continue to give. Just because the assignment page is filled up sometimes a week or two in advance does not mean it is not necessary. We ask you to spread the word in your communities. I have never seen so many good-looking, bald-headed men, which may mean you are outside the age limit of active duty, and therefore you can help the work of the blood plasma unit. Any healthy adult between the ages of 18 and 60 (young people under 21 must have the consent of parents or guardians) can easily spare a pint of blood.

One other thing, you know the Red Cross is responsible for recruiting nurses for the Army and Navy. The Nurse's Aides Volunteer Service is doing a magnificent job. We ask your cooperation in urging young women with an aptitude for nursing to take the nurse's aide seven weeks' training under the auspices of the Red Cross. The Volunteer Nurse's Aide Corps has grown from 364 Aides in July 1941 to well over 50,000 who have received certificates. They work in civilian hospitals, Veterans' Administration facilities, community health agencies, blood banks, O.C.D., First Aid centers, and similar places where there is an acute shortage of trained nurses.

THE PRESIDENT: The next order of business is the appointment of Reference Committees. The following Committees have been appointed:

Committee on Credentials: Drs. E. P. Coleman, W. E. Kittler and Fred H. Muller.

Committee on Attendance: Drs. W. S. Bougher, O. W. Rest, George E. Kirby, and T. A. Lawler.

Committee on Reports of Officers: Drs. G. Henry Mundt, Frank Deneen, and C. W. Carter.

Committee on Reports of Councilors: Drs. A. H. Bitter, Wade Harker and A. M. Vaughn.

Committee on Reports of Standing Committees: Drs. P. R. Blodgett, W. I. Lewis, and W. A. Frymire.

Committee on Reports of Council Committees:

Sub-Committee "A" to receive the reports of the Educational Committee, the Scientific Service Committee, the Post-Graduate Committee, the Medical Economics Committee, the Veterans' Service Committee and the Committee on Arrangements: Drs. A. B. Owen, Oscar Hawkinson, and Ariel Williams.

Sub-Committee "B" to receive the reports of the Maternal Welfare Committee, the Fifty Year Club Committee, and the Committee on Industrial Health: Drs. Frank F. Maple, C. O. Tighsmith, and P. J. McDermott.

Sub-Committee "C" to receive the reports of the Committee on Medical Care for Public Assistance Recipients and the Committee on Interprofessional Relations, Drs. R. K. Packard, Fred Muller and G. E. Johnson.

Sub-Committee "D" to receive the reports of the Committee on Tuberculosis, Committee on Cancer Control, Committee on Mental Hygiene, and the Committee on Crippled Children's Clinics, Drs. N. S. Davis III, H. F. Bennett, and W .C. Blaine.

Committee on Report of the Editor, Medicine and the War, and Scientific Work: Drs. L. O. Frech, Robert H. Hayes, and G. L. Kaufman.

Committee on Miscellaneous Business: Drs. C. O. Lane, Ben E. Fillis, and S. M. Goldberger.

Committee on Resolutions: Drs. Frank P. Hammond, L. S. Reavley and Harlan English.

The President: "Each Reference Committee is expected to receive those reports allocated for careful study and report back to the House at the Thursday morning session. You are expected to comment freely on each report assigned to your Committee. If in agreement with the work of the Committee and their report, it is your duty to report same to the House. If you believe other data should have been presented, you may comment on same. Your criticisms and suggestions should be given in your report.

If any Committee desires additional information from either the chairman of the Committee or officer making the report, or if you desire to interview other members of the Committee, you should get in touch with the proper officer or chairman, and arrange for such a meeting before your Committee.

The annual reports are presented to the House of Delegates each year to give an accurate report on what has been done during the past year, and the Reference Committees are selected to give careful study to these annual reports and comment on same. Each officer and Committee member is anxious to follow instructions given by this House of Delegates which is the Legislative Branch of this Organization.

The By-laws of this Society prescribe certain Standing Committees and enumerates their respective duties. Additional committees have been appointed by the Council, to carry on work not prescribed in the By-laws and according to the changing needs each year. Although these Committees are actually instructed by the Council, their reports are to this House of Delegates and the Council as well as the Committees as a whole, are anxious to receive constructive criticisms or suggestions as to what they can best do, for the interests of the Society as a whole, and in some instances for the citizenry of Illinois.

Each Committee should meet in regular session to go over their reports in their entirety, before agreeing upon their report which will be presented to the House at the second meeting. Stenographers will be available to write the individual reports. These should be made in duplicate and both copies handed to the Secretary Thursday morning after their presentation, and final action taken by the House."

The next order of business is the annual reports. These have been printed in the handbook, but can be supplemented if desired. Each report was called for in turn.

REPORT OF THE PRESIDENT

To the Members of the House of Delegates:

This has been a most interesting year. The duties of a President are to attend all meetings of the various committees, the council meetings and to visit different County Society meetings when requested to do so. These usual activities have been followed in the past years as they have been followed in the previous years by previous Presidents, and it has been a great source of pleasure to me to note the willingness and conscientious endeavor of all groups to assist in the war effort, and to promote and systematize better medical service on the home front.

The work of the Council has gone on with its usual thoroughness. Meetings have been held regularly with a full attendance at almost every meeting. I want to commend to the House of Delegates the honest effort and the splendid ability of your Council. These men are conscientious and thorough, and they give most thoughtful consideration to every subject. The chairman of the Council, Hamilton, has had a fundamental grasp on the issues at stake and has conducted the meetings with prompt efficiency. At this time I want to express my sorrow and your sadness at the death of that splendid member of our Council, Dr. L. E. Day, who was a friend to all of you, and a splendid worker for the best medical practice.

My association with your efficient Secretary has been most pleasing. His long years of service in this Society have qualified him in a most excellent way to guide and direct the many multiplying problems of the Illinois State Medical Society. As editor of the Illinois Medical Journal he has put new life and efficiency into the Journal. I am sure that we are all proud of the Journal's appearance and improvements that have been made in the Journal. We are especially proud of the fact that for the first time in its history the Journal is a paying venture.

It is altogether fitting and proper that your President express to you his great sorrow and bereavement due to the death of the wife of our Secretary, Doris Camp. She was a spark of life, a wonderful personality and we will miss her at our meetings.

Our greatest concern has been with the procurement and assignment of physicians. We have had splendid cooperation with the committees in the various counties. Illinois came through with its quota up to the present year in a very satisfactory way. At the present time we are well on the road to fulfilling our 1943 quota, and an earnest effort is being made to treat all men fairly, and at the same time to see that the various communities of our State do not suffer for lack of medical attention. Just how long this war will last, and what will be the demands made upon the medical profession none can say. We do know that it is well to be prepared, and I commend to you the effort that is made by the civilian defense in organizing first aid and hospital care for anticipated emergencies. Because fewer physicians are required this year more careful and individual attention and personal contacts will be given to those who are selected. We are a privileged group in that we are allowed, by the Federal Government, to conduct our own enlistments. We have not been drafted and I doubt with the splendid spirit shown among medical men we ever will be drafted. This is our fight. We are fighting along the groove that we have always fought, namely, that of individual liberty and a freedom for the democratic way of life.

Another major problem, the care of the old age recipient and aid to dependent children, has been gradually smoothed out. A better understanding has been obtained between the public welfare groups and the physicians so that I believe I can report to you that the condition of this patient is satisfactory, and I commend the splendid work that has been done by Charles Phifer in working out the details of this enormous and ever increasing problem, many of whose perplexing and irritating sharp points were directed to your attention last year by Dr. Rieger of Freeport. I do not mean to say that all the problems have been solved, but I do say that there is a better understanding of the problems involved and of the methods of solving them. This is a form of socialized medicine which is with us, and one that I believe we will have to cooperate with rather than condemn in its entirety.

May I again call your attention to the fact that we have a rapidly growing history of the Illinois State Medical Society, and that a definite effort should be made to systematize and keep this history up to date. This should probably be done at the County level and the complete and if necessary brief history forwarded to your State secretary. Only by keeping this as a growing loose-leaf record on our part can we hope to preserve a practical, efficient history of medicine in Illinois.

In conclusion let me thank the men on the various committees for the splendid way in which they have conducted the affairs of your Society, and I want to thank each and everyone of you for your splendid spirit in the past year. It has been a pleasure and an honor to serve you.

Edward H. Weld, M. D.,
President.

REPORT OF THE PRESIDENT-ELECT

To the Members of the House of Delegates:

After reviewing the many many questions which have arisen in the course of the meetings of the Council of the Illinois State Medical Society, together with the observations which point the trends of Medicine during this time there arise two main subjects which largely comprise the most important subjects which engage the Medical Profession in this state today.

While there are other questions which are important and must receive our attention these two problems are linked up with so many lines of activity

and thought that it seems fitting that we should stress them at this time and give them the best thought and sudy of which we are capable.

They are first: — The exertion of all the power which we possess, to see that the Medical Profession of the State of Illinois gives everything it has, to contribute its share in winning of the war which now lies before us.

And second: — The employment of an equal amount of vigor in preserving the valuable experience of the past and coordinating it with our best thought and study in directing all the various ramifications of the practice of medicine so that when we emerge from this wild orgy of bureaucratic confusion the Medical Profession may be able to stand before the people of this country proclaiming to our returning colleagues that we have kept faith with them in preserving a standard of practice worthy of the respect it has enjoyed in the past generations; and which will provide for the people of this state and country medical care, which shall embody all the best thought and experience that Medical science has produced, and yet shall not in any way be prostituted to the selfish interests of any group or groups of men.

If we can accomplish these two things we shall have written a memorable page in the Medical History of the State of Illinois.

Respectfully submitted,

George W. Post, M. D.,
President-Elect.

REPORT OF THE SECRETARY

To the Members of the House of Delegates:

At this second annual meeting during the second world war, your secretary is once more pleased to submit his annual report and give full information of the work which has been done in the secretarial offices during the past year. We use the plural in this connection, as during the past year it has been necessary for your secretary to average nearly two trips to Chicago each week, and much of the work in connection with his several duties is carried on in the offices at 30 North Michigan Avenue.

It would be well worth the time of all members of this society to visit these offices which formerly housed only the Educational and Scientific Service Committee activities. Now the quarters have been enlarged and in addition to the work of Miss McArthur and her committees, it is the headquarters for the Legislative Committee and the business office for the Illinois Medical Journal. Your secretary on these frequent visits to Chicago is permitted to have many conferences with literally hundreds of Chicago members and during the past year, particularly, many duties in connection with Procurement and Assignment Service work have been carried on at this office.

Owing to the fact that so much time since the last annual meeting has been devoted to medicine in its relation to the war effort, we shall digress from the usual procedure in submitting this report and give information relative to these duties first, then other essential data later.

PROCUREMENT AND ASSIGNMENT SERVICE FOR PHYSICIANS

For the first time in the history of this country, the medical profession in time of war, has been assigned a most important duty in connection with the procurement of physicians for the armed forces. The Procurement and Assignment Service for Physicians, Dentists and Veterinarians was created by Presidential decree, and soon thereafter, your secretary was asked by Man-Power Commissioner McNutt to accept the chairmanship for physicians for the state of Illinois.

Previously the Committees on Medical Preparedness had made a medical manpower survey and compiled files of all physicians of the entire country with much pertinent data, this being prepared and maintained solely for the government. When the Procurement Medical Preparedness, additional data had to be proby Governor McNutt to accept the chairmanship for cured and through the aid of the county committees, it was relatively easy to get this information for the 101 counties of Illinois outside of Cook County.

Cook County became a real problem, for there was no list available of all physicians within the county, who were not members of the Chicago Medical Society and of this State Medical Society. Some interesting information was developed. There were approximately 12,500 physicians registered in the State of Illinois, although many of these were not in practice, or were spending part or all of their time in other states, although maintaining their Illinois license. Many were not in private practice, but were on full-time duty as teachers, industrial surgeons, medical referees for insurance companies, employed as executive director, or full-time position in hospitals, etc. So we soon learned that hundreds of physicians in this state were not doing civilian work. Illinois with a population now of slightly more than eight million people, has approximately the same number in Cook County and the other counties outside of Cook; perhaps a few more in Cook County at the present time. But of the 12,500 licensed physicians, 7,193 were residing in the city of Chicago and a total of 8,000 in Cook County, giving a physician-population ratio of about 1 to 500, while in the downstate areas, there were approximately 1 to 1,000.

Our survey of the 101 counties outside of Cook, as stated before, was completed early in the history of the Procurement and Assignment Service. Last summer following a Conference in the East, it was decided that we should have a Vice-Chairman for Cook County and Ralph A. Kordenat, 6 North Michigan Avenue, Chicago, was selected for this position. Through the cooperation of Illinois Selective Service System, and the assistance of Charles H. Phifer, Chairman for the Sixth Service Command for Procurement and Assignment, we were able to get a complete list of all physicians registered with the Cook County local boards, and eventually built up files which were relatively complete for the entire state.

While procuring this information for Cook County, we were making many hundreds of the down-state physicians available for Army or Navy service and many were being commissioned. With the ever-expanding Army and Navy, and with the many fronts our fighting forces are interested in, it is quite obvious that these armed forces must have a sufficient number of physicians to give the necessary medical and surgical care. It has been so frequently stated that very few physicians under the age of 45 who are physically fit will remain at home for civilian practice, regardless of their own desires.

Under the Procurement and Assignment Service organization, we have the Directing Board in Washington, with Frank H. Lahey as chairman, the Service Command Chairman, and in the case of Dr. Phifer as Chairman for the Sixth Service Command, he is interested in the States of Illinois, Michigan and Wisconsin, then the Service Command Committee, this bringing the organization to the state level.

Within the state, we have the State Chairman and Vice-Chairman, the State Committee a special Council Committee to aid the State Committee, then the individual County Committees on Procurement and Assignment. At this time, it is the duty of the State Chairmen and Committee to determine availability or essentiality of physicians, although the recommendations come first from the County Committees. When a physician is declared available, he has the right to appeal to the Service Command Chairman, then if the decision of the State Committee is sustained, a further appeal can be taken to the Directing Board in Washington.

Although the personnel of the Illinois State Committee has not been publicized, we wish to state that decisions on availability or essentiality in questionable cases, are invariably referred to the entire State Committee for this determination. All available information pertaining to the case is placed before the State Committee, including the statements of the individual physician whose status is being determined.

During most of last year, the War Department Medical Department Officer Recruiting Board was delegated the responsibility of getting the physicians inducted into service, but before the close of 1942, a change was made in this procedure and the previous plan was amended so that the forms are now sent to the War Department Officer Procurement Board, which for this state is located in the Civic Opera Building, Chicago.

During 1942, with so many downstate physicians entering service, there were a number of communities where too many physicians were leaving civilian practice and with illness among the remaining men, usually much above the age of 45, this really became acute in a few instances. Procurement and Assignment was then given additional duties, relative to the relocation of physicians from communities which could spare one or more physicians, and asking them to relocate to other places where their services were needed more urgently and for the duration.

This information was publicized in the Illinois Medical Journal and through other facilities, and although this was strictly on a voluntary basis, much has been accomplished. We were directed to endeavor to get physicians physically disqualified for service to relocate for the duration of the war, and quite a number have responded in recent months.

Illinois had what was generally considered an unusually high quota for 1942 and at the end of December, we learned that it was not only met, but slightly exceeded. Thus credit for the excess above the regular quota was applied to the 1943 quota. At the present time, the physician to population rate in Cook County is approximately 1 to 700, while for the other 101 counties it is approximately 1 to 1,300, this including specialists and physicians able to do only part-time work on account of some physical disability.

It is quite obvious to all who know the facts that during the remainder of 1943, the majority of physicians required from Illinois for the armed forces must come from the larger cities and especially from Cook County.

Information came in a few weeks ago from Washington that during the present summer, an intensive survey is to be made jointly by the Procurement and Assignment Service and the United States Public Health Service to determine the medical needs of many Illinois counties. Plans are now made and before this report is presented to the House of Delegates, a number of counties will have been visited and the information procured.

A few months ago the Procurement and Assignment Service was placed under the War Manpower Commission, along with Selective Service and Governor McNutt is the Director. It has been the policy, as directed from Washington, for the Procurement and Assignment Service to cooperate closely with the State Selective Service System, and this has proven to be of definite advantage to both groups.

On April 16, 1943, the President signed a bill enabling the commissioning of women physicians for the medical corps, although from information available at this time, this apparently does not apply to women dentists, or veterinarians. Inasmuch as definite information has not yet been received relative to the services for which women physicians are to be used, instructions have been given that they be processed (made available or essential) as has been done in the case of male physicians since this work was inaugurated.

As this report as well as all others presented before this House of Delegates will be referred to proper reference committees for study and then will be reported back to the House with proper recommendations, the Chairman and Vice-Chairman for Illinois, and Chairman for the Sixth Service Command will gladly endeavor to give any additional information that may be desired by the Reference Committee at its meeting.

THE COUNCIL

The Council during the past year has been called together approximately every two months for many important considerations which have required its attention. Many of these have been pertaining to the war effort and the participation of the medical profession of our state. Dr. R. R. Cross as Director of the Illinois Department of Public Health has been present at these meetings and has referred many subjects of importance to the Council for action. Other state departments have likewise referred important matters to the council for its consideration.

The Chairman of the Council, Edwin S. Hamilton, elsewhere in this handbook has given a more detailed report of Council activities which we would respectfully call to your attention. Each member of the Council has devoted much time to the serious consideration of many problems pertaining to the state society as a whole as well as problems concerning their individual districts.

WORK OF COUNCIL COMMITTEES

Several committees during the past year have assumed additional responsibilities in connection with the role of medicine in the war effort. The Committee on Industrial Health has been assigned many important duties with the ever-increasing number of workers in essential industries, and this will do doubt continue throughout the war.

The Maternal Welfare Committee likewise has held regular meetings, to consider many problems in obstetrics and infant care. With the ever-increasing birth rate and new problems pertaining to the care of dependents of men in service and those working in industry, more demands on the time of the committee have been made than ever before.

The Medical Care of Public Assistance Recipients likewise has developed many problems which have been constantly referred to the Committee for consideration. At this time there are more than 150,000 old age assistance recipients with the number gradually increasing. The Committee report as prepared under the supervision of the Chairman, Dr. Phifer, will give much information on this subject and should be carefully studied by the members of this House of Delegates, and by the reference committee to which it is referred.

The Committee on Medical Benevolence, under the direction of Dr. John S. Nagel, chairman, has worked under difficulties during the past year. Quite a number of beneficiaries are now receiving monthly checks, and each case has been carefully investigated to see that it meets the requirements under the by-laws of this society. One member of the Committee entered military service last year, requiring the selection of a substitute. The second man decided to go to another state, and a third man was appointed by the president to serve until this annual meeting when a successor must be elected by the House of Delegates. The man so appointed temporarily, became ill, was taken to a hospital where a few weeks later, he passed away, again leaving a vacancy on the committee personnel. More information on the subject will be given by Dr. Nagel in his presentation to this House.

THE SOCIETY

Complete membership data as of April 30, 1943, will be presented in this report. All county societies have been carrying on even though many of the members are in service. Some smaller societies meet less frequently than under normal conditions, yet the meetings have rather generally been well attended during the past year. More practical subjects are presented at their meetings, and the interest has not waned even with a serious conflict involving our nation which has been under way for the past 18 months.

It has been necessary for the Secretary's office to refer many questionnaires to the component societies to get important information and the response on the whole has been surprisingly good. Reappraisals of medical conditions and personnel in all counties have been requested several times during the past year by governmental agencies and the information has been promptly submitted.

The Post-Graduate Conferences in the recent series have been devoted principally to a consideration of timely subjects, many of which are referable to industrial medical and surgical conditions and others which have some bearing on present conditions. They have invariably been well attended and the interest has been unusually good. There has been a general expression favoring a continuation of these conferences even though it is more difficult for physicians to leave their work even for one day and under present rationing of tires, gasoline and other essentials for travel.

The report of the Fifty Year Club Committee shows a considerable number of additions to the personnel during the past year. Many presentations of the usual emblem and certificate have been made at special meetings with the Councilor for the district usually making the presentation. In a few cases where the new member has been unable to attend a meeting, the presentation has been made in the physician's home. The Second Annual Luncheon Meeting of the Fifty Year Club will be held in the Palmer House on Wednesday, May 19, with an interesting but short program arranged by the Chairman, Dr. Andy Hall.

Even with a war on, the membership has been well maintained and many who have previously not enjoyed the privileges of membership, have submitted applications which have been approved by the component societies.

THE ANNUAL MEETING

Plans for the 103rd Annual Meeting have been quite difficult to make with not only so many active members in military service, but with a number of section officers likewise in the Army or Navy. It was necessary for the Council to consider many things in giving the go ahead signal for the meeting to be held.

Vice-Chairmen or Secretaries for the sections were appointed by the President and under the guidance of Robert S. Berghoff, as General Chairman of the

Committee on Arrangements, plans were developed to make this a meeting which will long be remembered as a war meeting. All programs have been carefully arranged so that they should be of interest to all who are present during the annual session.

Complete information relative to the meeting, the programs, special features, and other data will be found in the official program. Efforts have been made to attract as many men in uniform as possible, and subjects of general interest to this large group have been scheduled, and they will be permitted to register and participate in the deliberations according to their individual desires.

DEATH OF PROMINENT MEMBERS

Once more it is our sad duty to report to this House of Delegates the loss to the Society through death of many outstanding members. The Council lost one of its outstanding members by the death of Lemuel Edgar Day who gave his life to his country in the jungles of New Guinea December 23, 1942. Major Day was elected to the Council at the annual meeting ten years ago and served efficiently and loyally until he received his army commission last summer. For two years he was chairman of the Council and during his tenure of office, he became a friend of all physicians who attended the annual meetings. His passing was characteristic of this fine man for he was operating in his mobile hospital with enemy planes bombing and strafing overhead, but he refused to leave his crude operating table. He had his first heart attack while working long hours caring for men injured when the hospital was bombed. He refused to quit until his work was finished. Then on December 23, while operating he had a second heart attack, was urged to go to bed immediately and let his assistant finish the work, but Day refused to stop as he had promised the fine lad, who was the anesthetized patient, that he would see him through. With much difficulty he finished the job, and collapsed, went to bed and died during sleep. Through his passing, this Society has lost one of its outstanding workers who was always trying to do his part, and invariably doing it well.

Arthur E. Walters, Springfield, died following a heart attack on March 1, 1943. He was first vice-president of the Society several years ago and for many years a member of this House of Delegates. Hugh A. Beam, Moline, passed on to his eternal reward during the past month. He, too, for many years was a prominent member of this House of Delegates and participated in all deliberations at the annual meeting.

Charles F. Yerger, Chicago, died March 16, 1943. Prominent in eye, ear, nose, and throat work for many years, he was an officer of this section several years ago. Henry W. Grote, Bloomington, prominent for many years in Society activities, died June 20, 1942. Prominent in radiological circles, he served as an officer of that section some years ago. He was also for several years a member of the Legislative Committee of the State Society. Walter L. Migely, Naperville, died September 13, 1942. He was prominent in his local society work for many years and some years ago was a member of the House of Delegates from DuPage County.

Joseph H. Gann, for many years Secretary of the Massac County Medical Society, died at Brookport, August 6, 1942. Although physically handicapped in his last few years, he received the distinction of being elected as lifetime secretary of his society some three years ago.

Space will not permit us to tell as much as we would like relative to many other prominent members of this Society who have passed away since the last annual meeting. Among these are John M. Hayes, Decatur, who died while on duty at Camp Forrest, June 29; Col. George B. Lake, physician, traveler, poet and author, who died March 2, 1943; M. J. Hubeny, nationally famous Roentgenologist who died July 2; J. W. E. Bitter, Quincy, who died December 17; Edmund J. Doering, Chicago, who was graduated in Medicine in 1874 and died March 1; H. Gideon Wells, Chicago, outstanding pathologist died early in April.

Other prominent men in medicine and members of this Society who have died recently are: Frederick G. Dyas, LaGrange; William M. Harsha, Chicago; Lt. Col. Joseph L. Stettauer, Chicago; Col. P. J. Sarma, Chicago; J. Brown Loring, Chicago; David S. Hillis, Professor of Obstetrics at Northwestern University Medical School; John A. Robison, Chicago, for many years a member and president of the Illinois State Board of Health; William F. Myers, Coal Valley; Herbert A. Potts, Chicago; Cary Culbertson, Chicago; Winfield Scott Hall, Chicago; Joseph C. Beck, Chicago, for many years prominent in Otalaryngological work; Gustav Kolischer, Chicago; Edson B. Fowler, Evanston; and Stephen Walter Ranson, prominent among Neurologists for many years.

As this report is being written, word has been received of the recent death of W. H. G. Logan, Chicago, for many years prominent in both medical and dental societies as an oral surgeon and a member of many medical and dental organizations.

Many other Illinois physicians and members of their State Medical Society have been called by the Grim Reaper from their earthly toils. It is the duty of those of us who are permitted to carry on, to cherish the memories of these makers of medical history in Illinois and we are all enriched through their work and our association with such fine physicians whose principal motive was invariably to help suffering humanity.

MEMBERSHIP DATA

At the annual meeting one year ago, the total membership of the Illinois State Medical Society was 8,430. I am indeed pleased to report a most substantial gain in membership during the past fiscal year as follows:

Membership reported as in good standing, April 30, 1942		8,430
Added during the year:		
New members	512	
Reinstatements	39	
		551
		8,981
Dropped during the year:		
Deaths reported	114	
Removal or resignation	20	
Non-payment of dues	115	
By expulsion	1	
		250
Membership April 30, 1943		8,731
Net gain for the fiscal year		301

As has been repeatedly stated in these annual reports, the membership of this Society varies each day and there will no doubt be additions to the membership prior to the annual meeting.

FINANCIAL REPORT OF THE SECREARY

Receipts from County Societies

Adams	$ 416.00	Jasper	34.00	Randolph	16.00
Alexander	76.00	Jefferson-Hamilton	160.00	Richland	184.00
Bond	96.00	Jersey		Rock Island	600.00
Boone	56.00	Jo Davies	160.00	St. Clair	80.00
Bureau	172.00	Johnson	8.00	Saline	
Carroll	140.00	Kane	914.00	Sangamon	852.00
Cass	112.00	Kankakee	287.22	Schuyler	32.00
Champaign	542.00	Knox	348.00	Shelby	104.00
Chicago Medical Society	29,508.00	Lake	960.00	Stephenson	296.00
Christian	160.00	LaSalle	576.00	Tazewell	
Clark	80.00	Lawrence	84.00	Union	108.00
Clay	132.00	Lee	144.00	Vermilion	96.00
Clinton	96.00	Livingston	176.00	Wabash	
Coles-Cumberland	320.00	Logan	176.00	Warren	186.00
Crawford	86.00	McDonough	144.00	Washington	80.00
DeKalb	232.00	McHenry	236.00	Wayne	72.00
DeWitt		McLean	814.00	White	80.00
Douglas	128.00	Macon	340.00	Whiteside	224.00
DuPage	531.00	Macoupin	224.00	Will-Grundy	1,408.00
Edgar	224.00	Madison	472.00	Williamson	
Edwards	72.00	Marion	216.00	Winnebago	608.00
Effingham	16.00	Mason	48.00	Woodford	84.00
Fayette	64.00	Massac	8.00		
Ford	96.00	Menard	80.00		
Franklin	8.00	Mercer	64.00		
Fulton	248.00	Monroe	40.00		
Gallatin	16.00	Montgomery	72.00		
Greene	84.00	Morgan	184.00		
Hancock	96.00	Moultrie	64.00		
Hardin	8.00	Ogle	122.00		
Henderson	48.00	Peoria	878.00		
Henry	256.00	Perry	16.00		
Iroquois	40.00	Piatt	88.00		
Jackson	160.00	Pike	80.00		
		Pulaski	40.00		

Total	$47,686.22

RECEIPTS AND PAYMENTS

May 1, 1942 to April 30, 1943

Receipts

Component Societies	$47,683.22	
Subscriptions — Journal	179.32	
Advertising — Journal	27,522.00	
Exhibits — State Meeting	5,237.50	
Interest — Bonds, etc...	2,281.24	
Department of Public Health	208.07	
Medical Histories	15.00	
Dividend from Sheridan Trust and Savings Bank—Claim	256.04	
Miscellaneous	134.59	
Total Receipts		$ 83,516.98
Cash Balance, May 1, 1942		81,251.91
Total		$164,768.89

Payments

Secretary's Office	$15,813.49	
Council Expense	4,921.64	
Educational and Scientific Service Committees	11,119.81	
A. M. A. Meeting Expense	1,038.54	
State Meeting Expense	5,107.87	
Maternal Welfare Committee Expense	1,070.42	
Post Graduate Committee Expense	415.25	
Honorariums	1,500.00	
Legal and General Counsel Expense	879.94	
Legislative Committee Expense	6,588.29	
Procurement & Assignment Committee Expense	1,004.54	
Public Assistance Committee Expense	339.41	
Journal Expense	22,200.90	
Unemployment Insurance — Deposit	553.27	
U. S. Government Bonds	20,000.00	
Various Committee and Miscellaneous Expense	500.95	
Total Payments		$ 93,054.32
Cash Balance, April 30, 1943	$71,781.31	

Less Victory Tax withheld .	66.74	$ 71,714.57
Total		$164.768.89

Respectfully submitted,
HAROLD M. CAMP, M. D.,
Secretary.

FRED N. SETTERDAHL
Licensed Public Accountant
224 Robinson Building
Rock Island, Illinois

To the Members of the House of Delegates:
Illinois State Medical Society,

CERTIFICATE OF AUDIT

I have audited the following accounts of your Society for the fiscal year ended April 30, 1943:

Secretary's Office — Dr. H. M. Camp,
Journal Office — Mr. L. E. Malley, Business Mgr.
Educational and Scientific Service Committees — Miss Jean McArthur, Secretary,
Benevolence Fund — Dr. H. M. Camp.

SECRETARY'S ACCOUNTS —

Receipts: I have verified the dues received from the Component Societies with duplicate receipts, the master ledger cards of each Component Society and compared same with the Secretary's Report as published.

The Journal Receipts have been verified with reports from the Manager, etc. Other receipts consist of Exhibit rentals, Journal subscriptions, interest, etc.

Payments: Payments are made by check and are supported by approved vouchers, orders, invoices, etc.

All funds are deposited in the name of the Society and Bonds amounting to $80,000.00 have been verified. During the year the Society has purchased U. S. Treasury Bonds amounting to $20,000.00.

During the year dues of men in service have been waived, so the receipts from Component Societies have been reduced.

The records in the various departments have been well kept and in my opinion represent the true transactions for the year. I will furnish the Council with a detailed audit report.

Respectfully submitted,
Fred N. Setterdahl,
Licensed Public Accountant

DR. CAMP: I enumerated in my annual report quite a list of prominent members who had passed away during the year. Several others have died since the list was published and I wish to add their names.

C. B. Ripley, Galesburg, passed away two weeks ago; R. L. Benjamin, Kankakee, a few days ago; A. H. Geiger, Chicago, a member of the House of Delegates and of the Medical Examining Board as well as of the Medico-Legal Committee, died a week or so ago. Last Thursday Lowell Cline of McLeansboro, was killed in an airplane accident, and a few days ago J. T. Hilliard, Fairfield, passed away.

I want to report the very serious illness of our past president, Dr. Philip H. Kreuscher, who is in Wesley Memorial Hospital in a very critical condition.

THE PRESIDENT: I would ask the House to stand for thirty seconds in memory of those who have departed.

REPORT OF THE CHAIRMAN OF THE COUNCIL

To the Members of the House of Delegates:

Since the last annual meeting of the Illinois State Medical Society, the Council has had eight meetings for the consideration of many problems which have arisen. A large percentage of these have had to do with some phase of war medicine. In addition to these meetings, there have been several meetings of the Executive Committee to consider matters requiring immediate attention so that action could be taken promptly at the time, and a subsequent report made to the Council for their information and approval. All of the Council meetings have been well attended and it is unusual for a member not to be present unless illness in his immediate family or a most serious case in his practice has made his absence necessary.

COMMITTEES

During the past year the various committees of the Council, as well as those elected by the House of Delegates, have been very busy. The time given by their individual members has at times been very great. Due to various causes some changes in the personnel of Council Committees has become necessary. At the request of Dr. Kreuscher, who for several years has been Chairman, a new Chairman has been appointed for the Committee on Industrial Health. This new Chairman is Dr. Frederick W. Slobe of Chicago. At the request of the Council, Dr. Kreuscher has remained on the Committee where his wise judgment and experience makes him a most valuable member. At the request of Washington, this Committee has assumed many new responsibilities during the last year. As the health of workers at essential industries becomes increasingly important in reducing absenteeism and promoting efficiency among the workers, efforts have been made to get a committee on Industrial Health in practically every county in the state where a considerable number of men are employed in industry. These men, appointed by the Presidents of the component County Societies, are assuming new duties under the general direction of the Committee on Industrial Health. With the approval of the Council, at the suggestion of the Journal Committee, a new section on Industrial Health has been added to the Illinois Medical Journal with the Committee on Industrial Health assuming the responsibility of submitting material. The April issue

of the Illinois Medical Journal was largely devoted to a symposium on Industrial Health. The papers had been presented at a meeting sponsored by the Committee on Industrial Health which had been held in Chicago. Quite a number of Government releases on problems concerning health and industry have been recently published in our Journal. We have made every effort to give the fullest cooperation in this work as part of our war effort.

The Committee on Maternal Welfare has continued its work in regard to maternal and infant mortality and morbidity in Illinois. It is a very active committee and holds regular meetings to outline its policies and consider its problems. The statistics, released through the Illinois Department of Public Health, show a decrease of mortality and morbidity of both mothers and infants. Some of the credit for this decrease must go to the work of this Committee. The Committee has endeavored to cooperate with the State Department of Public Health and many meetings have been held with the representatives of this Department as well as with the Council to consider the problems of mutual interest which have arisen. Dr. Fred Adair, now in charge of this work for the Department of Public Health, has presented several new ideas as to methods of improving the care of mothers and infants. These innovations have been carefully considered by the Committee and when necessary the Council has been consulted. Some of Dr. Adair's plans have been approved and are now in operation, while others are still being investigated by the Committee.

The Committee on Medical Care of Public Assistance Recipients has continued to work with the Department of Public Welfare in an effort to get all possible compensation for the medical profession under the present medical plan. They have held many meetings both as a committee and in conjunction with the representatives of the Department of Public Welfare. They recognize that the physicians working under the present plan are under-paid and have made every effort to improve the compensation of the medical profession for services rendered. It is their sincere belief that under the present cooperative plan, returns for physicians in Illinois are better than those of other states. We again call to your attention that the law under which this department is operated is a federal law and can only be changed by the Congress of the United States. Your careful attention is called to the report of the Committee, of which Dr. Charles H. Phifer is chairman, which appears in this handbook, and we trust that every delegate will read this report carefully before the first meeting of the House of Delegates. At the last annual meeting of the House of Delegates a motion was passed recommending that the Council appoint a special committee to consider the matter of fees for medical service rendered the recipients of Public Assistance. This Committee was to report back to the Council before the 1943 annual meeting. This Committee was composed mainly of those men who at the annual meeting in 1942 were most critical of the work of the Committee on Medical Care of Recipients of Public Assistance. They have had several meetings and the chairman has met with the Council at least once. At the time this report is written the Chairman of the Council has not yet received a report from this special committee. Accordingly, it will be necessary for the Chairman to make a supplementary report as to the nature of the action that was taken by the Council on the special report of this Committee. This is probably one of the most controversial subjects which will come before the House of Delegates and all members of the same should try to be conversant with what has happened in the past and the plan that is now in operation so that they will be able to discuss intelligently the proposals of the subcommittee and recommendation of the Council. Final decision as to the position of the Illinois State Medical Society on this question will be decided by the House of Delegates.

In 1942, the first annual luncheon conference of the Fifty-Year Club was held during the annual meeting of the Illinois State Medical Society under the Chairmanship of Dr. Andy Hall. The attendance was excellent, the interest was great, and it was the opinion of those attending that an annual dinner should be held for those men. Consequently, arrangements have been made for such a meeting during our annual meeting and the program is again being arranged by Dr. Andy Hall. It is to be expected that each delegate to the state meeting will transmit a personal invitation to those members of the Fifty-Year Club in his County to attend the annual dinner.

PROCUREMENT AND ASSIGNMENT

The amount of time necessarily devoted to the consideration of furnishing physicians to the armed forces of the United States was greatly increased in 1942 over the preceding year. The Council has acted as a state-wide committee cooperating with the State Committee on Procurement and Assignment as well as local County Committees throughout the state. They have considered many problems connected with the readjustment necessary as thousands of physicians of Illinois have entered the armed forces. Approximately 43,000 physicians have left private practice in the United States and are now in the various armed services, and many more will be needed annually until the war ends. We are pleased to report that Illinois, as one of the largest states, had an unusually high quota of physicians to furnish during 1942 and was able to fill that quota. The quota for 1943 is well under way of being filled and we have every assurance that it will be. The large number of physicians entering the service from "down state" Illinois has undoubtedly inflicted hardships upon the civilians in some sections of the state. There are physicians in approximately 850 communities of Illinois and in many of these, one-half to two-thirds of the medical man power has entered the service. In some counties there are less than one physician to 2500 civilians and in several places it has been necessary to assist in the relocation of physicians to that community from other communities where the supply is more adequate. As more men

enter the armed service, it will be increasingly necessary to relocate physicians. The Councilors can be of great assistance in this work on account of their contacts with the medical profession through their districts. The Councilors have also been consulted frequently as to the availability of physicians through their districts. This problem has been of increasing complexity as the demand for more physicians in the armed forces increases because it is necessary that the home front must be afforded adequate medical care at the same time. Never before has the need of physicians been so great both in the armed forces and at home. It is neither within our province to express an opinion as to the number of physicians the armed forces need nor to decide whether they are most badly needed in the army or at home. The problem of organized medicine is to make every effort to supply the armed forces with the medical men they request and at the same time try to protect the health of the civilian population. Apparently, most physicians under the age of 45 who are physically able to pass the examination will be needed in the army and the navy within the next two years, if the war continues that long. This will be a great burden on the older men of the medical profession of Illinois who will have to increase the amount of their work. It is hoped that their physical strength will allow them to furnish the necessary service.

Maintaining health of those many employees in essential war industries, including the farmers, has likewise received much consideration by this Committee. The work of Procurement and Assignment in the past year has been done at a state level with a Chairman down state, a Vice-Chairman located in Chicago, and a State Committee. These groups have met frequently and regularly to review the demands of armed services as well as the review of the recommendations and classifications of the County Committees as to the availability of men in their counties. In accordance with the request of the American Medical Association at its last meeting a War Participation Committee has been appointed by the Illinois State Medical Society. The duties of this Committee are to confer with the Procurement and Assignment and other groups in consideration of the many problems brought up by the decreasing civilian medical man power of the state. Their duties are also to bring to the attention of the War Department any of the difficulties which arise within the state as a result of lack of civilian medical care. Organized medicine has been given more duties in connection with medical war problems than ever before, and it is mandatory upon us that we do our part and show that organized medicine is best fitted to solve the problems referable to medical care as well as other medical matters. This is a challenge to the medical profession which must be accepted and given careful attention.

The Council devoted considerable time and attention to the subject of this annual meeting. There was a considerable difference of opinion as to the advisability of having the regular meeting in 1943 or restricting it to a meeting of the House of Delegates for consideration of business matters only. It was finally decided to hold the meeting, featuring it as a "War Meeting." Plans have been made in accordance with the decision of the Council. All committees and others interested in promoting the annual meeting were asked to give wide publicity to the nature of the same and to extend special invitations to all physicians in the military service in Illinois and surrounding states.

The Council also devoted much time to the consideration of Post-Graduate Conferences. It was found that there was a demand for them to continue even in war time and it was finally agreed that four or five such conferences would be scheduled, the program to feature subjects which were of interest to all members of the profession at this time. Among the subjects discussed were: Management and treatment of shock, blood transfusions, plasma and blood substitutes, treatment of soft tissue injuries, and the oral, parenteral, and local uses of the sulfonamides. These meetings were held as scheduled. The largest attendance was at Rockford where many men in military service were present and participated in the presentation and discussion of the papers. All papers presented at this meeting were published in the Illinois Medical Journal. This method was used rather than the mineographing and selling them to those who ordered them.

The relationship between the Illinois State Medical Society and the Illinois Department of Public Health under the direction of Dr. Roland Cross has continued to be most pleasant. Dr. Cross has attended all meetings of the Council and has given and received all possible cooperation by the Council. Health defense zones, where there are many manufacturing plants making defense materials, have been created by the State Department of Public Health. Problems of unusual nature affecting the health of the people in these areas, such as living in trailers and improvised homes have been aided by health officers and by local men. It is of great importance that the most cordial and cooperative relations continue between the Department of Public Health and the Illinois State Medical Society. This is mutually agreed by Dr. Cross and the Council and is always paramount in the minds of all.

The work of the Medical Benevolence Committee, under the chairmanship of Dr. John S. Nagel, is to be especially commended. This work has new been in operation for 2½ years. All cases reported to the committee have been carefully investigated by the Chairman and other members of the committee as well as through local Medical Societies. Men have received regular remittances, which are greatly appreciated. The personnel of the committee has changed twice in the past year. One member of the committee joined the armed forces and the man selected to replace him left to practice medicine in a neighboring state. Dr. H. A. Beam of Moline appointed to act on the Committee until the annual meeting, became ill and passed away the latter part of March. Dr. Nagel will make an oral report to the House on his Committee. In addition he has some definite recommendations to make in re-

gard to conducting the work of this committee. It should be referred to the Proper Reference Committee at the Tuesday meeting so that the House of Delegates can take a definite action thereon at the Thursday morning meeting.

Due to the large number of Medical men who have joined the armed forces down state, there has been a considerable discussion and some criticism as to the nature of the medical service in those areas with diminished personnel. While the Council knows of few places where there is an actual shortage of medical care, they are cooperating with the United States Public Health Service and the Procurement and Assignment Service in conducting a joint survey of certain areas in Illinois to determine the adequacy of medical care. A man from the United States Public Health Service will make the survey through first-hand information and personal contacts. Naturally the local Medical Societies will be expected to cooperate with him when requested.

Frequently the public expects too much of the physician and takes up much of his time unnecessarily. With a war on, the medical profession should receive the complete cooperation from the civilian public. Citizens of the various communities should be urged, through educational campaigns to save the time of the physicians as much as possible. Much time is wasted each day in answering telephone calls. The public takes a great deal of the physician's time asking unnecessary questions, discussing symptoms over the telephone and in placing request for house visits to be made. Some visit over the phone and take much of the physician's time. In several communities check-ups were made and it was learned that from one to two hours each day was spent in telephone conversation, and in many instances the office secretary could have taken the message without any demand on the physician's time. In some states, the Medical Societies have arranged interesting posters to be hung in the doctor's office, calling the attention of the patients to the large amount of work that is now required of the physicians in private practice. Suggestions are made that calls be placed early in the day and no calls are to be made at night except in an emergency. Likewise, that it is not always necessary to talk to the physician himself in arranging for office visits. Patients are urged to go to the Doctor's office during regular office hours. In many states there is a report of excellent cooperation from the public when the problem is properly presented.

Suggestions have been presented to the Department of Registration and Education of Illinois to grant temporary license to physicians from out of the state who wish to come to Illinois to practice for the duration of the emergency. These temporary licenses to be granted without examinations. The Council consulted with the Department of Registration and Education and agreed that this would be a most dangerous procedure and might threaten to break down the Medical Practice Act which has required 75 years to develop. It was the unamimous opinion of the Council that the State of Illinois through the Department of Registration and Education and the present Medical Examining Board should be able to take care of these functions and a vote of encouragement and approval was given to the Departments. A duplicate copy of this letter was sent to Governor Green. The speed-up program of medical schools resulted in a request from the Medical Colleges in Chicago whereby the time period from matriculation to graduation be shortened in the Medical Practice Act. After many meetings with the Deans, members of the Department of Registration and Education of Illinois, and the Medical Examining Committee, the Council opposed any changes in the Medical Practice Act and again commended the work of the Department in maintaining a high standard.

LEGISLATIVE ACTIVITIES

Legislative Committees both of the House of Delegates and of the Council have been active through the past year. Under their direction, John W. Neal, executive secretary, has continued to study the bills on health and allied subjects introduced into the legislature at its regular biennial session. They have held frequent conferences together and have kept the Council informed as to the progress of the proposed legislation. Their reports should be included in the handbook. A number of bills pertaining to health and allied subjects have been introduced. On several occasions you have been asked to urge your local members of the legislature to vote for or against certain bills with adequate reasons for the request. Recently all members of the Society have received two or more bulletins from the Legislative Committee in regard to the laws presented at the present session of the Legislature. This committee has been interested for many years in fostering plans for improving the health conditions in Illinois and is endeavoring to maintain the present high standards of the medical education required by the present Medical Practice Act. All efforts to develop short cuts in preparation for medical practice has been opposed, for they realize that with the ever increasing medical research and investigation, the present requirements for eligibility to practice medicine are not too high. During the war it does not seem wise to shorten the medical curriculum. This might permit those to practice medicine who are not as well trained as they have been in the past and who are not fully informed on medical progress. From the statistical reports released through the State Department of Public Health it can readily be seen that health conditions in Illinois are the best they have ever been. It is with pleasure that the Council reports to the membership that no unfriendly or dangerous laws have been placed on the books of Illinois in the past year and it is the opinion that none will be passed if the active cooperation of all the members of the Society is extended when and as requested by the Committee, the Council, or the Executive Secretary.

ILLINOIS MEDICAL JOURNAL

Under the constitution and by-laws of the Illinois Medical Society it is the duty of the Council to supervise the editing and publication of the Illinois Medical Journal. Much time has been devoted by the Council to maintaining and improving the high standards of this Journal which now is distributed to more than 9,300 physicians monthly. Through the excellent service of the Journal Committee and the Editorial Board, both directly under the control of the Council, regular reports have been received at each meeting of the Council. Cooperation with the Government agencies in publishing releases has been approved at all times and all have been published. "War Medicine" section endeavors each month to give the latest information received relative to physicians and war service with excerpts from the many directives which have been issued at frequent intervals. Plans pertaining to medical education in war times, the accelerated curriculum plans, internes and residents in hospitals and many similar matters have been presented in the Journal.

Advertisements have been solicited carefully and many applications have been turned down by the committee for ethical reasons. Efforts to improve the contents and appearance of the Journal have been made. From the compliments received both within and without the state, the results apparently have been very successful. The Journal Committee has met frequently and discussed policies.

MAJOR LEMUEL EDGAR DAY

It is proper and fitting that the report of the Council should give adequate attention to the passing of one of its members, Dr. Lemuel Edgar Day. He had been a member of the Council for several years and in 1940 and 1941 was its Chairman. During this time he gave unsparingly of his time and ability working for the best interest of this Society and the Medical Profession in Illinois. Against the advice of his friends, Dr. Day joined the Army in June, 1942, and within two months was in the South Pacific. He established and was in charge of the first field hospital of New Guinea and while there, displayed the same qualities that made him a leader at home. He was affectionately referred to as "Pop" on account of his fatherly interest in the young men of his hospital. In spite of the difficulties of working there and the rigor of the climate, he did a large volume of work, and was decorated for bravery in action just two days prior to his demise. The hardship he had undergone resulted in a loss of 50 pounds in weight and although advised to return to Australia, he insisted on remaining with the hospital. On December 23, 1942, he suffered a heart attack. Instead of going to bed and following the advice of his assistant, he insisted upon continuing at the operating table to complete the operations he had lined up and had promised to perform. When the operations were completed, he went to bed and passed away during the night. This was very characteristic of Lemuel Edgar Day. He always assumed his duties and responsibilities seriously and continued to perform them regardless of the cost to himself or his time. It is particularly unfortunate that he passed on to Eternal Life at a time when he was of most service and was obliged to leave a family when fatherly love, devotion, and direction was most necessary. He leaves a wife, two sons, and a daughter. I am sure the life of their father will be an incentive and guidepost to them throughout their entire life. The loss to the Council of the Illinois State Medical Society and Organized Medicine in Illinois is extremely great and the members of the Council wish to publicly express them.

The question of cancellation of the annual dues of the Illinois Medical Society for members in the armed service was brought up early in the year of 1943. This is a question for offical action by the House of Delegates. While the Council was unanimously of the opinion that cancelling of dues should be continued throughout the war emergency, they did not feel that it was within their power to assume this responsibility and therefore have recommended to the House of Delegates that their action of this past year in cancelling the dues of those members who are in the armed forces, be continued.

During the past year the Council of the Illinois State Medical Society has continued to cooperate with the Council of Civilian Defense, under the Chairmanship of Dr. Pettitt. A large portion of this work has been Educational in the nature of coordinating the work of the Civilian Defense in the various districts and counties of the state. Dr. Pettitt has been requested to make a complete report of his activities to the secretary of the Society and it is hoped that the same will be available by the annual meeting.

A rehabilitation program is being outlined by the State of Illinois. A Committee composed of the heads of the Department of Public Health, Department of Registration and Education, and the Department of Public Welfare, is outlining a plan for rehabilitating rejected draftees and men returning from the military service as unfit for service. The Council has been assured by the Chairman, Mr. Thompson, that they, the Illinois State Medical Society, will be consulted before any definite program is decided upon and their advice and assistance will be solicited at the proper time.

The financial condition of the Illinois State Medical Society continues excellent as a review of the audit will show. In spite of diminishing annual dues, the result of cancelling the dues of those members in the military service, and without curtailment in activities, it has been possible to keep our budget balanced during this year. How long this can be continued is indefinite, but we have a surplus accumulated during the past several years to care for such an emergency.

The Chairman wishes to thank every member of the Council for his support and assistance during the past year. He also wishes to thank all members of the Committees and especially their Chairmen for their

work. The demand on both the Council and the Committees has been much greater during the current year than any time within the memory of the Chairman. The time these men take from their personal work to do the work of the Society is wholly without adequate compensation and no one appreciates this more than the Chairman. Cooperation of this kind has greatly relieved the work of the Chairman, and has made what success we have had during this year. We wish especially to thank the Secretary, Dr. Harold M. Camp, for his work during the past year. In spite of serious personal problems he has at all times given the Council his advice and assistance. The loss of his wife early in 1943 was an exceptionally heavy blow and the Council at that time expressed and now repeats the sincere sympathy of the entire membership of the Illionis State Medical Society for his great loss. Those of us acquainted with Mrs. Camp know of how great an assistance she was to her husband in his work. We realize to some extent, what her long illness and final loss has meant to him and appreciate most fully his ability and willingness to continue to carry on his work for the Society during this period. His office continues to be run most efficiently with limited personnel and he deserves a special commendation of the Council and the Chairman.

Respectfully submitted,
E. S. HAMILTON, M. D.,
Chairman of the Council.

DR. E. S. HAMILTON: Those of you who have read the annual report of the Chairman of the Council should not be surprised that there is a supplementary report. A year ago we had quite a controversial subject for consideration, old age assistance. At the time the report of the Chairman of the Council was made the report of the Committee on Old Age Assistance had not been received and it was impossible to take any action. Very shortly thereafter the Committee made the report. I do not know whether it is your pleasure to have this report read or not — it is five and one-half pages. It reviews the work of the Committee, its different activities with some correspondence. Unless there is a definite desire to have this report read, if it meets with your approval I will refer this along with my report to the appropriate Reference Committee.

DR. L. O. FRECH, Decatur: May I request that the Chairman give a brief resumé of the contents so that the delegates will have some idea of the report.

(Dr. Hamilton reads report)

DR. HAMILTON: That is the report which was presented to the Council on the second of May of this year. It was mimeographed and sent to each member of the Council and it was discussed at the last meeting of the Council this morning. In the meantime many things have happened which will probably be told to you by the Chairman of the Committee much better than I am able to do. However, there are two or three things which I think you should know about because they led to the decision which the Council arrived at.

First, the price of the services rendered under O.A.A. and A.D.C. have been raised; medical office calls have raised from $1.00 to $1.50 effective as of June 1 this coming year. Also we have the assurance by the head of the Department of Public Welfare and also by the Director of Finance that this information will be definitely presented to you, that arrangements are now being put into effect whereby the O.A.A. and A.D.C. will pay for the final illness of their recipients, including hospital and doctors' fees.

At this meeting the Council passed the following resolution:

"The report of the special committee — Advisory Committee on Medical Care of Public Assistance Recipients, did not confine itself to the service for which it was appointed. We take no action; however, the Council endorses the work of this Committee and commends their efforts."

This resolution was passed by the Council and was appended to the report.

REPORT OF COUNCILOR OF THE FIRST DISTRICT

To the Members of the House of Delegates:

In making out a report as to the state of the 1st District I wish to report that as a whole the 1st District is functioinng in a satisfactory manner. I have been able to visit all societies but two and they are in the extreme west end of the district. One county is not functioning well due to scarcity of doctors and distances they travel to get together. How to change this, I do not know. However, I expect to call on the officers soon and see if something can be done to secure more activity. There is, of course, a marked change in the number attending meetings and in the personnel. Now one only sees the old and infirm.

During the past year our district held a very successful post graduate meeting in Rockford. It was held in February of this year and due to the nearness of Camp Grant and the many medical men, it was

well attended. A very instructive and educational exhibit was put on by the medical personnel of Camp Grant.

During the past two months I have had the privilege and pleasure of presenting to two members of the State Society 50 year buttons. In March the DeKalb County Medical Society honored Dr. Geo. Nesbitt of DeKalb for 50 years of service and presented his button. At the April meeting of the Stephenson County Medical Society, Dr. Geo. Poling of Freeport was honored for his 50 years of active practice. I also had the honor of presenting his button.

A number of our societies meet monthly, others every other month. These are the active societies of the district. The depletion of medical personnel in various parts of the district is quite serious, but I believe that the health of the general public is not suffering from lack of medical services.

In the northern part of Kane County, approximately 50 per cent of the active membership is in the service and it varies throughout the district from 50 to 25 per cent.

I would say that I think the district as a whole is in a very good condition and wish to express my appreciation to the County Society officers for their help and cooperation.

Respectfully submitted,
L. J. HUGHES, M. D.,
Councilor First District

REPORT OF COUNCILOR OF THE SECOND DISTRICT

To the Members of the House of Delegates:

Before starting to write this report we though it might be interesting and enlightening to review what had been written a year ago. The councilor of this district reported "no serious problems" and most councilor reports devoted little space to the effect of the war on the medical profession in the various districts of the state. This year much might be written but we are quite sure that the problems in this district are not unique; i. e., too many doctors taken from one community and not enough from another and so on. However, most doctors, both in and out of the service, are doing their bit to help win the war. There is little complaint of inadequate medical service and while both physicians and hospitals are severely taxed, the public is very considerate and accepts reduced medical service — at least as well as it does rationed meat and gasoline.

Because of the large number of doctors in the service and the arduous duties of those left at home, it is but natural that attendance at meetings has fallen off. However, all the societies are carrying on. La Salle and Bureau counties have held joint scientific meetings with considerable satisfaction. The programs have been of pre-war excellence and the joint meeting has helped the attendance.

Many favorable comments on the Journal have come to our attention.

Respectfully submitted,
EDGAR C. COOK, M. D.,
Councilor Second District.

REPORTS OF COUNCILORS OF THE THIRD DISTRICT

To the Members of the House of Delegates:

The Chicago Medical Society continues to hold scientific meetings monthly and the Council of the Chicago Medical Society also holds one meeting each month, at which the business of the Society is transacted. The 16 branch societies making up the Chicago Medical Society continue to hold scientific meetings once each month and in some instances, adjoining branches are holding combined meetings. In this manner each branch continues to have its meeting, the attendance is increased and the doctors have an additional evening to devote to other duties. The subjects discussed at most of the meetings during the past year have been those pertaining to "War Medicine" and to industry.

The induction of more physicians into the service and the increased demands made upon the doctors in civil practice have caused a smaller attendance to be apparent at the scientific meetings but this is held to be only a natural result and should be so interpreted by the speakers and essayists.

The Chicago Medical Society was composed of 5,076 members as of January 1, 1943, which number included 55 Interne and 57 Non-resident members. This figure represents an increase of slightly more than 200 members over the year previous. 76 members of the Chicago Medical Society died during the year 1942. On April 1, 1943, 1399 members of the Chicago Medical Society had been called to active duty with the armed forces, including 14 Officers of Branches and the President of the Chicago Medical Society.

Dr. Lemuel E. Day, a Councilor from this District for many years, died in New Guinea on December 23, 1942 shortly after having been decorated for valor, while serving as a Major in the Medical Corps of the United States Army, and was one of the first medical men from this district to lose his life while in service. The death of Dr. Day constitutes the loss of a kindly, valient, ambitious, capable gentleman to this body and the esteem with which he was held by the Council is apparent when it is stated that his successor was not chosen by the Council but will be elected by the House of Delegates at this meeting.

In the report of the Councilors of this District to the House of Delegates last year, attention was called to the inconsistency that existed, whereby certain members of the Illinois State Medical Society were ineligible for commissions in the Army, Navy or Public Health Service. It is to be noted that this condition no longer remains and that all members of the Illinois State Medical Society are now eligible for commis-

sions in the various services as some of the graduates from an un-approved Medical School have been members of the State Society.

In the Chicago Metropolitan area are 6 geographical zones in each of which are held the preliminary physical examinations of men called under the Selective Service Act. These examinations are conducted for the greatest part by volunteer physicians located in the communities and as many as 1,650 men have appeared for examination at one center in one morning. Inasmuch as only about 3 or 4% of these selectees have obvious defects at this preliminary examination which render them physically unfit for service, it would seem that this procedure as now nationally conducted is principally a waste of time for the physicians who might be conducting careful physical examinations that would be of value or else performing other duties. The medical profession continues to cooperate in this so-called examination in spite of the general feeling in the matter.

The office of the Chicago Medical Society has continued to function efficiently in the presence of added work. The capable secretary and office personnel have carried on with the aid of a past President in spite of the absence of the President who is in the armed service and the President-Elect who was ill for several months. The Chicago Medical Society has again seen fit to remit the dues of members who are in the service.

Respectfully submitted,
JOHN S. NAGEL, M. D.,
PERCY E. HOPKINS, M. D.,
Councilors Third District.

REPORT OF COUNCILOR OF THE FOURTH DISTRICT

To the Members of the House of Delegates:

Conditions in the Fourth Councilor District have been decidedly influenced in the past year as a result of the war. In the Peoria and Rock Island Districts, a decided increase in the number of industrial workers has brought up new problems of housing and health that have not had to be faced heretofore. While — in Fulton County and at least three or four adjacent counties — the establishment of Camp Ellis, with its influx of several thousand workers who had to be housed in the nearby communities (which averaged about six hundred population each), has created many unusual and unforeseen problems. These will become more difficult rather than easier when the civilian workers leave and perhaps 40,000 or more new troops are put into this camp.

Throughout this area, nearly all of the available younger medical men have gone into the Service. In several localities, others of the younger men who have been rejected for some minor disability, have seen fit to leave these communities in order to avail themselves of better opportunities elsewhere. The result has been to throw an increasingly heavy burden upon the older men. So far these older men are carrying on surprisingly well. They are working long hours and sometimes, under considerable physical handicaps.

In spite of this, no community has been left entirely without medical care, and even in the overcrowded areas, all needed medical care has been furnished.

Many doctors, in addition to their regular work, are also serving as members of the draft boards.

The County Societies report fewer meetings, some of them only having an annual organization meeting, many others having from four to six meetings a year, and the two larger Societies meeting only once a month instead of twice monthly.

Some of the counties have reported having Medical Advisory Committees which enable the members of these committees to take charge of health matters and the doctors are gaining valuable experience in this type of leadership. They will be of increasing value in preventing medical domination by lay groups.

One Post-Graduate Assembly was held in Peoria, which was well attended. An excellent program was furnished, and the opinions expressed were to the effect that these meetings were of real value and should be continued.

The tendency toward a shifting population has brought about an increase in the tuberculosis rate in some communities. In a few of these, this tendency has been met by programs combining the work of medical men with county nurses, to get all contacts to the doctors' offices for examination and chest X-rays when necessary. Where this has been done, several dangerous situations have been cleared up and the likelihood of an unnecessary increase in this disease has been diminished.

The interest in obstetrical conditions, particularly in over-crowded communities, has been maintained largely through local hospital staff meetings and the efforts of the county committees on obstetrics. It is apparent that the doctors are alert to the demands of this type of practice, and are doing excellent work.

The region about Camp Ellis, however, is going to call for an increased immunization program, and this has been approved by the Fulton County Medical Society.

The Councilor of the Fourth District has attended all of the regular and special meetings of the Council. He has served on several committees which, for purposes of economy of time, have held their meetings on the same day that Council Meetings were held. He is of the opinion that conditions of the Fourth Councilor District are as satisfactory as can be expected, considering the rather strenuous conditions under which our members are compelled to practice.

The following information has been received from the Secretaries of some of the Societies in this district. Replies at present are not complete, so the list is submitted as of this date:

Society	*Members*	*Members in Service*	*No. Meetings Per Year*	*Ave. Attend.*
Rock Island County	100	27	10	20
Warren County	24	3	2	20

Hancock Co.	15	2	4	6
Mercer County	13		1	12
Henderson Co.	3	0	4	3
Henry County	30	3	4	25
Schuyler Co.	9	2	1	9
Fulton County	34	6	4	20
Peoria County	182	62	10	50

Respectfully submitted,
E. P. COLEMAN, M. D.,
Councilor Fourth District.

DR. COLEMAN: I want to make one correction in the summary. In Henry County which should be included with Stark County I have given three members as being in service, it should have been 13.

REPORT OF COUNCILOR OF THE FIFTH DISTRICT

To the Members of the House of Delegates:

Many changes have occurred in every community as a result of the war and the practice of medicine has undergone radical changes during the past year. Since most of the younger men are in the military service, the older members of the profession have had to assume additional duties in every community and this has been done willingly.

The Fifth District has made an excellent record in the number of physicians who have entered the armed forces. The number of physicians in the service is as follows: Sangamon County with a membership of 147 has 44 men; McLean County with a membership of 90 has 39 men; Logan County with a membership of 17 has 8 men; DeWitt County with a membership of 16 has 7 men; Mason County with a membership of 15 has 5 men; Menard County with a membership of 6 has none; no report has been received from Tazewell or Montgomery Counties.

Although the local medical societies have been depleted in numbers yet regular meetings have been held throughout the District and the attendance has been good. The character of the programs has changed and more of the local men have taken part on the programs. We believe that it is a good plan for the local men to appear upon the programs. No complaints of a serious nature have arisen within the District.

There has been considerable criticism regarding the administration of the medical services for the recipients of old age assistance. One thing that is very objectionable is the plan in use whereby a physician cannot collect his bill when these old people die although provision has been made for the undertaker's bill. There have been complaints made regarding medical services rendered on an anticipated basis. This method has caused severe criticism and it is very unsatisfactory from several viewpoints. Unnecessary services are frequently rendered because an estimate has been given and it is only logical to assume that the service will be rendered. Objection has also been made to the extra clerical work in filling out the forms for services that have been rendered. A change in the law so that payment for services rendered might be made direct to the physician by the Welfare Department would be appreciated. Some of the supervisors have refused to assume any responsibility for the care of these individuals who are sick for long periods of time. Some change in the law should be made which would make this care mandatory by the supervisor.

There have been several deaths during the year: Drs. Albert Aschauer, A. E. Walters, Thomas Priest of Sangamon County, Dr. H. W. Grote of McLean County, Dr. Joseph Knochel of Logan County Dr. Walter M. Caton of Mason County.

The State Committee on Procurement and Assignment has had a difficult job but it has done the work with credit. To this committee was assigned the task of getting the physicians into the military service and they have certainly accomplished that task without seriously disrupting the medical services in the various communities of the State.

Respectfully submitted,
RALPH P. PEAIRS, M. D.,
Councilor Fifth District.

REPORT OF COUNCILOR OF THE SIXTH DISTRICT

To the Members of the House of Delegates:

As a new member of the Council I have been deeply impressed by the earnest and sincere efforts of that body to protect and to further the interests of the members of our Society. I have been amazed to know how many hours have been spent by the principal officers in the performance of their various duties. This has been done cheerfully and faithfully and I know has entailed considerable sacrifice, both physically and financially.

I have visited every County Society with the exception of one. There have been no major problems. The physicians of this District like those in all parts of the country are overworked because of the absence of many of their younger colleagues who are serving in the Armed Forces. However, the attitude is one of cheerfulness and that of duty to do all that they can to help win the war. I know of no area inadequately supplied by competent medical service and have heard no complaints from any community regarding a shortage of physicians.

Throughout this District there is still considerable discontent with the program of Old Age Assistance. I think this dissatisfaction is due principally to the fact that a great many physicians lose financially when a recipient of Old Age Assistance dies. There are, of course, existing laws that provide ways of collecting this, but they are not always feasible and in many instances the doctor remains unpaid.

Attention is called to the inter-professional meetings held in two counties. These have been splendidly attended and I am sure produce worthwhile results. Such meetings promote mutual understandings and I

feel should be continued and those Counties which have not heretofore held them are urged to do so.

Respectfully submitted,
WALTER STEVENSON, M. D.,
Councilor Sixth District.

REPORT OF COUNCILOR OF THE SEVENTH DISTRICT

To the Members of the House of Delegates:

The eleven County Societies constituting the Seventh Councilor District, are all functioning very well and a fine spirit exists throughout the District. Most of the Doctors complain of being too busy.

There has been no problems in any of the component Societies requesting special attention from the Councilor. The most serious concern that has come to my attention has been the shortage of Doctors in some of the communities, due to the induction of so many of the younger Doctors into military service. In most of the communities the local preparedness committees have placed all physicians under forty-five years of age in the available class and unfortunately several communities in the District have been left without adequate local medical care. This has made a definite hardship on many overworked physicians, in adjacent communities, who have supplied the needed service at a sacrifice.

The activities of the defense plants in and near some of the larger cities have resulted in increased business in the medical field, as well as all others in these areas.

The treatment of the Old Age Recipient cases and Aid to Dependent Children, continues to be a problem in some of the Societies, but for the most part it is being handled very satisfactorily, by cooperation with the Public Welfare Department of the Counties. There has been a material decrease in the Relief load in most of the counties.

The Local Civilian Defense is well organized and being prepared for its regular functions, under National Defense in the control of epidemics, as well as for the anticipated air attacks.

With the one-hundred-and third annual meeting of the Illinois State Medical Society, I will have finished eighteen years as a Member of the Council of the Society, representing the Seventh Councilor District, and in the language of the late Calvin Coolidge, "I do not care to run for another term."

In retrospect — only two of the elected members of the Council and the Secretary remain of the original members. It has been a great privilege and a high honor to have served the medical profession as a Councilor during these strenuous years, and to have known intimately the large number of physicians, who have constituted the officers and Members of this Society.

Organized medicine has made rapid strides during these two decades, and by the indomitable spirit of its leaders, it has won an enviable place among the State Medical Societies of the nation. Greater work is just ahead, during the aftermath of this Global War with a general trend toward socialization of medicine; lowering of medical standards in the Colleges and Universities and granting lisensure to the great army of alien and refugee physicians, who are flocking to our shores. This will require sound judgment, straight thinking, and sacrificial giving of time and energy, such as we have not seen in the past two decades. I still have implicit faith in the leadership of the Society to carry on for the good of organized medicine.

The Councilor wishes to thank the members of the component Societies for their coopcration during the past years and to the Council and members of the Society, may I say again, it has always been a pleasure to work for and with the members of this Society.

Respectfully submitted,
I. H. NEECE, M. D.,
Councilor Seventh District.

REPORT OF COUNCILOR OF THE EIGHTH DISTRICT

To the Members of the House of Delegates:

There is nothing of unusual interest to report from the component medical societies of the Eighth District. There appears to be a unity of purpose in winning this war and with many doctors in the medical corps, those remaining at home are very busy and have no time for complaints.

The great majority of the doctors under forty-five years of age from each county are now commissioned officers and their absence has been felt, but the doctors who remain on the home front are working longer hours in order to give the people efficient medical care. One county with only six doctors was not affected, as all of these men were past the forty-five age limit. A few doctors under forty-five were declared essential in their communities and also a few were rejected from entering the service, on account of physical defects.

Only occasionally, do we learn of a doctor in the younger age group, who has not applied for a commission. There has been no serious complaint from any community that adequate medical care is not available.

Most county medical societies in the district are holding their usual meetings and the scientific programs are being well maintained. While there is a noticeable reduction in the attendance, there is no "letdown" in interest on the part of those present. I am pleased to report that the doctors in this district are doing their part in keeping up the high standards of medicine, which have characterized "American Medicine."

As Councilor of the Eighth District, I appreciate very much the fine co-operation of the officers and members of the diffcrent component societies, in keeping up their active county organizations. Organized Medicine has a grcat responsibility in maintaining our American system of the practice of medicine, so that our members who are giving their best efforts to preserve our free Democratic form of life may, on their

return to civilian life, enjoy the same freedom as individuals as when they departed.

Respectfully submitted,
C. E. WILKINSON, M. D.,
Councilor of Eighth District.

REPORT OF COUNCILOR OF THE NINTH DISTRICT

To the Members of the House of Delegates:

The Ninth Councilor District is composed of fourteen counties in the southeastern part of the state. Some of these counties have a goodly number of physicians and some have but few. There are 12 organized Societies in the Ninth District — one small county has no organiaztion and one small county, Hamilton, is combined with Jefferson in an organization. The Jefferson-Hamilton County Society, the Wayne County Society, Franklin, Williamson, and Saline County Societies have regular monthly meetings and splendid scientific programs. Three counties, Johnson, Pope and Massac, have a tri-county organization and have monthly meetings. Some of the small counties, Edwards, Wabash, White and Gallatin, have meetings occasionally. However, many of the physicians in these counties attend the scientific programs held in other parts of the district.

The attendance at medical meetings in the District have not been as good as in former years; notwithstanding the scientific programs have been excellent and have been well advertised. This is due to the fact that many of the physicians have entered various branches of the service, the restriction on tires, gasoline and the fact that the physicians are more busy than ever before.

The first Refresher Course held under the auspices of the Illinois State Medical Society was at Mt. Vernon in the 9th District and the Southern Illinois Medical was held at Marion in the 9th District. Both meetings were well attended.

Quite a number of physicians from the Ninth District have entered the Medical Corps of the Army, Navy and Air Corps during the past year and others are awaiting a call. However, no one in this territory has suffered from lack of care. Doctors remaining at home have cut out their fishing, hunting vacations and have started working earlier and have worked later to see that no one suffered from lack of medical attention.

In almost every county in the Ninth District there occurs from time to time advertisements in local papers of itinerant, unethical physicians who have been licensed to practice medicine in the State of Illinois. They usually stop at some hotel for one day, and claim they can successfully cure without surgery all diseases to which the human flesh is heir. It is hoped that some legislative measures can be enacted that will subject these "advertising quacks" to prosecution or revocation of their license.

Respectfully submitted,
ANDY HALL, M. D.,
Councilor Ninth District.

REPORT OF COUNCILOR OF THE TENTH DISTRICT

To the Members of the House of Delegates:

War! yes, war has made many changes in the Tenth Councilor District as all other districts, and although it is small in size, the response of our doctors to the Armed Forces has been most gratifying; the average for the district being about forty-four per cent.

Attendance at medical meetings has fallen off about the same proportion as the county has been depleted, but we are still carrying on and the interest in scientific programs seems to be very high — in medical economics and socialization, even higher.

One of the subjects of particular interest is the County Health Unit which legislation is in the making at the present time.

Another is the establishment of an office in Washington for the purpose of keeping our Senators and Representatives properly informed on better health legislation.

The specialized training program being set up by the Army and Navy for the education and training in medicine is creating much interest and discussion. If this program is adopted, it will place the medical student directly under Army and Navy jurisdiction.

It is very evident that the doctors at home are not only doing a swell job professionally, but are taking time out for constructive thinking.

I wish to take off my hat to the man on the home front.

Respectfully submitted,
G. C. OTRICH, M. D.,
Councilor Tenth District.

REPORT OF COUNCILOR OF THE ELEVENTH DISTRICT

To the Members of the House of Delegates:

During the past year the component County Societies of this district have maintained their organizations and continued regular meetings. This is in spite of about one-third of their membership now being in military service and with the resulting increase in work for those men who remain at home.

The amount of work for the Councilor has been considerably reduced and while he has attended at least one meeting of each County Society he has not been called upon for much additional traveling.

The DuPage County Society continues in good condition with an active organization. The Will-Grundy Society continues to have weekly meetings with good attendance and interest. The Kankakee County Society has held regular monthly meetings with an excellent attendance. The Iroquois County Society has held regular meetings. Ford County, alone, has not kept up regular meetings; but this is in accordance with their policy of many years with a limited membership and long distances to travel to the meetings.

There have been no special problems arising in this district. Most of the problems have been local and have been handled by local authorities. This has been most satisfactory to the Councilor who has been quite engrossed in those problems presented to the Council as a whole, of which he has been Chairman the past year. He has given this work a great deal of time and has made numerous trips to different parts of the state. There seems to be two questions of importance in this district. One is the furnishing of adequate and satisfactory medical care to the public by those doctors remaining at home during the emergency. As far as it has come to the attention of the Councilor, the needs of the community have been well taken care of and there has been considerable cooperation from the public. So that in his opinion medicine is carrying the increased load in good shape. It is to be hoped that this will be continued, but there is the danger of the elderly men, who have remained and who are doing the work, may find the burden too great.

The other problem, which is far from settled satisfactorily, is the care of recipients of old age assistance and dependent children. While all counties except one in this district have approved the plan and the cooperation of the major portion of the medical profession has been given, there still remains a great deal of dissatisfaction both on the basis of the plan itself and the method in which it is administered. The medical profession is hopeful that some legislature will be enacted for payment being made directly to the medical profession by the Government for the services rendered the recipients of old age assistance. This, they feel, will obviate many of the difficulties of the present plan and will assure the doctors of payment for the service he has rendered, regardless of what happens to the patient. This must, of course, be done at Washington.

The Councilor wishes to thank the officers of the various component County Societies for their support and cooperation during the past year. He hopes that the various County Societies will continue to carry on as satisfactorily in the coming years as they have in the past, in this great emergency with the increased responsibility and work for the medical profession.

Respectfully submitted,
E. S. HAMILTON, M. D.,
Councilor Eleventh District.

REPORTS OF COUNCILORS AT LARGE

To the Members of the House of Delegates:

Organized medicine is on trial and to date has stood valiantly for our principles. Though the situation is the most trying the profession has ever had to contend with, doctors young and old have with few exceptions acquiesced and sacrificed much because of their loyalty to their profession and country. Young men just out of school with plans made for beginning practice have given up all and are now serving their country. Men who have spent ten years or more building a practice have abandoned it and are now in the army. Men contemplating retirement have had to buckle on their armor and serve full time at home, subject to call all hours of the day or night. Even men who had retired have picked up their old grip and are going strong. What I have written applies not only to the section where I live but to the entire state. Those of us caught in the draft at home have a double duty to perform, we must not only care for the sick and afflicted, but keep the home fires of organized medicine burning. We can have our organization ready to greet the boys and start them off again with a chance to make an honest living and take our places in positions of trust. In some counties where but a few doctors are left it will be very difficult, but can be done. My observations are that a good job is being done by everybody from our state president down to the humblest physician in the state.

Respectfully submitted,
J. S. TEMPLETON, M. D.,
Councilor at Large.

To the Members of the House of Delegates:

Instead of a recital of activities as a member of the Council, I should like to devote my part of this booklet to a brief discussion of our relation to state or socialized medicine.

In times of war, medicine along with most other members of society cheerfully surrenders some of its personal and professional liberties for the sake of the common good. We should be on the alert, however, to see that other members of society, of socialistic or communistic leanings, do not use the war effort as a cloak to further their schemes at our expense. While we spend very little time nowadays discussing state or socialized medicine, the proponents of that idea have not for a moment relaxed their efforts.

In order to carry on our fight against state medicine effectively, we should survey our present position, see how much state medicine we already have, find how it came about and try to see from what direction further extensions of it are likely to come.

The first was the Department of Public Health. The profession tried to create something of this kind as early as 1817 when Dr. George Fisher of Kaskaskia was Speaker of the Territorial Assembly. It was not till 1877 that the Illinois State Medical Society finally succeeded in having a State Department of Public Health, then known as the Board of Health, created on a permanent basis. It was then estimated that 3,000 persons who had never graduated from any medical school were practicing medicine in Illinois. One of the first acts of the new department was a move to drive such persons either out of the state or out of practice.

Other examples of state medicine are:

Hospitals for the mentally ill — established as a result of the activity of the medical profession.

Schools for the deaf and dumb and blind.

Homes for the feeble minded.

An epileptic colony.

Soldiers' and Sailors' orphans home.

Medical service in prisons.

Veterans Administration hospitals.

County and municipal hospitals.
Tuberculosis sanitariums.
Illinois Emergency Relief.
WPA.
NYA.
Farm Security Administration.
Division for Crippled Children.
Old Age Assistance.
Aid to Dependent Children.

We have opposed the establishment of very few the above agencies. Many of them were created as a result of our activities. With most of them our contacts are now too slight or too casual and our influence not sufficiently felt.

In 1927 the State Department of Public Health got out a very interesting two-volume work entitled "The Rise and Fall of Disease in Illinois." Almost two pages of Volume I are devoted to its platform which says among other things that the Department * * * "is not an agency for the cure of disease or for the custodial, remedial or reparative care of the sick or convalescent * * * . It should not supply any drug for cure."

But today the Department of Public Health is giving diagnostic aid for the study of pneumonia and drugs and serum for its treatment and cure. It is treating venereal disease on a wide scale. It has a Division devoted to Cancer and lately has engaged in the practice of obstetrics. That is, it pays private physicians for rendering obstetrical care to the wives of soldiers.

Some of these activities were imposed on the Department by law. None of those just listed have been actively opposed by this Society and some are carried on with our active cooperation. This Society has never yet opposed any measure that could be expected to improve the health of the citizens of Illinois. But the trend shows how the Department could infringe on the private practice of medicine if it were presided over by a man who did not recognize the proper limitations of public health work. Health officers have said that much public health work would be done better if the men in charge had had some experience in private practice.

Some of these agencies, but particularly the OAA, impose senseless inconvenience and additional work on the physician. The federal law forbids payment direct to the physician. Consequently the Division of Public Assistance finds itself in the position of seeking to impose a fee schedule for services for which it does not pay nor guarantee payment. This is partly responsible for a program not wholly satisfactory to any one — the Division that administers it, the recipients, the physicians who render the care, or your Committee which has tried to lessen some of the most irritating parts of the program. But we are certainly much better off by being in a position where we can enter into friendly discussion of these objectionable features with the people who administer the program and who like these features no better than we do, instead of being merely negative in our attitude, saying that we'll have nothing to do with it. Of course these old people, deserving or otherwise, are going to get medical care, more of it probably than they ever paid for themselves.

Governmental programs are always subject to a certain amount of abuse. Certainly the government should not do for a citizen what he can as readily do for himself.

The status of medical students and medical education may be desirable during the war — may be the best solution of the problem — but its continuation beyond the end of the war is a matter for grave discussion. If the state pays for a physician's education, it will almost certainly demand a certain amount of service from him.

Our present weakness is the lack of a liaison committee national in scope to counsel and guide the various government agencies, but particularly the Social Security Board if and when it seeks to broaden its medical programs as it inevitably will.

Often physicians employed in various government bureaus, inexperienced and too young to have acquired much judgment, are the ones in most intimate contact with the framers of legislation and with the legislators themselves. We are heard, if at all, after a bill is introduced into the law-making bodies. That is our weakness and our fault. We should maintain a permanent committee on public assistance which should interest itself in all government programs having to do with medical care, not merely to oppose them because some, if not desirable, are at least the lessor of two evils, as we have been recognizing for a hundred years. We should direct them, make them serve the public good as best they can, see that abuses are minimized and that private practice is disturbed as little as possible.

We in civilian life have a double responsibility during the war: First, to the civilian population and second, to our confreres in the armed forces. This state and this nation owe it to the men called to the colors to see that the private practice of medicine shall be disturbed as little as possible from the pattern that existed when they left civilian life. Society should not allow any group to take advantage of these men while they are away fighting to maintain this country. They should return to the same freedoms and advantages that they left.

What can we do about all this?

First, keep ourselves informed of our present status.

Second, keep informed as to pending legislation both state and national.

Third, provide ourselves with liaison committees to guide and advise government personnel concerned with these activities.

Fourth, do not oppose something we do not even understand. We should at least read a bill before indulging in any oratory against it.

Fifth, respond to calls made upon by our Legislative Committee.

Respectfully submitted,
JAMES H. HUTTON, M. D.,
Councilor at Large.

To the Members of the House of Delegates:

Our Nation's appeal to the medical manpower of this country for assistance during this global war has been most generously heeded by the members of the medical profession in this State. Illinois is to be congratulated upon the manner in which its physicians have answered the patriotic call to serve their country in this emergency. Thousands of physicians from this State are now in the military forces. Many of those who are at home are now serving as essential physicians in the care of the health of the civilians on our home front.

It is extremely doubtful if any one group of people is making a greater contribution in helping to win this war than are the members of the medical profession. While its duration or termination cannot be predicted at this time, great minds are thinking and planning on the problems of the reconstruction of the post-war period. It is more than probable that it will require all the scientific knowledge, strength, courage and statesmanship of American medicine to help rebuild this shattered world.

In the past year some of my time has been devoted to the Procurement and Assignment Service. I have attended the council meetings and a number of committee meetings. I have likewise attended a number of our National meetings, including the Council on Medical Education and Licensure, National Council on Medical Service, Conferences on Social Security, and conferences with the Department of Public Welfare, both State and County. In all the programs and agenda that was presented or discussed at these meetings, the majority of them were problems relating to medicine.

In the appointment of the Council Committees it fell my lot to be re-appointed Chairman of the Committee on Medical Care of Public Assistance Recipients. In assuming this obligation I want to state that I appreciate the fact that medical programs of this type are always difficult to organize and their objectives controversial. I would also like to state that I am personally opposed to socialized medicine in any of its forms. I recognize the handicaps of practicing medicine under any of these programs. I do, however, believe that we as a profession must recognize that this country is rapidly passing through a period of social change and that medical problems such as these are constantly increasing.

The Government is now emphasizing its responsibility in the care of the people. It is also taking an active part in bringing into reality such problems. The different branches of the Government may and can help to shape the practice of medicine. The fate of medicine may ultimately reside in the law that governs it and defines its responsibilities.

The majority of the people of this country have always been self-supporting. It is not for that reason that the members of the medical profession in the past have never adjusted their thinking and practices to caring for large groups of people wholly supported by the Government, nor to the results which follow the establishment of such principles. The past decade, however, with its economic upheaval, has created many new social problems. As a result, we have a large number of people now living on subsidies from the Government. There is no doubt that there will be many others after the war. In my opinion it behooves us as physicians to try to guide and shape the destiny of these problems so that adequate medical care will be provided for these people and at the same time disturb the private practice of medicine as little as possible. It is a problem that involves medical care. It is true that you or I may not care to participate in it, but there are some physicians who may so desire. It is difficult one. It will require the careful cooperation of the administering agencies and the members of the medical profession to find the solution for it.

I have enjoyed working with Doctors Hutton, Coleman, Hess, Camp and Hamilton.

Respectfully submitted,

CHARLES H. PHIFER, M. D.,
Councilor at Large.

REPORTS OF CONSTITUTIONAL COMMITTEES

REPORT OF PUBLIC RELATIONS COMMITTEE

To the Members of the House of Delegates:

During the past several years, our controversies with the insurance companies have evidently borne fruit.

The principal duties of the committee for some years has been to persuade the companies to see the light as we did. We believe they are now seeing eye to eye with us. We are inclined to think so for the reason that there have been very few calls for help in settling bills during the past year. This is very pleasing to the committee as we had some bitter fights to convince some of the companies that we were entitled to a just wage.

That our members may be informed of the conditions, and what they are required to do, before asking the committee to intercede for them, we are again submitting a few paragraphs that you may know what you are to do and what we have been doing.

The courts have ruled in this state that when physicians render bills for care to injured employes, the bill, if in conformity to the fee schedule of that particular community, is a just bill and must be paid.

When any member of the Illinois State Medical Society has trouble in getting payment in full for services rendered to companies carrying insurance and his fees were in accordance with the fee schedule of the community, our committee will gladly do everything possible in assisting the member to get the settlement to which he is entitled.

An itemized account of the charges made in each case, with a statement from the county medical society Secretary that the bill is just and conforms to the

usual rates for that type of service within the county should be sent to the Chairman of this Committee, and we will render all possible assistance.

If the House of Delegates desires additional information regarding any of our activities, we will gladly submit same.

Respectfully submitted,
W. S. BOUGHER, M. D.,
Chairman,
FRED H. MULLER, M. D.,
H. W. WOODRUFF, M. D.,
Committee on Public Relations.

To the Members of the House of Delegates:

As this report is written the legislative season is at its height, with both the Federal Congress and the Illinois Legislature being now in session. Since these bodies still have pending and under consideration numerous proposals of interest to the medical profession of Illinois, a summary of the substance and current status of some of these proposals is presented herewith. A final report of the activities of the Illinois Legislature will appear in the August issue of the Illinois Medical Journal.

The Sixty-Third General Assembly has been in session in Springfield since January 6, 1943, and will remain in session until June 30, 1943. Although nearly two-thirds of the six-months session period have elapsed, most of the real work lies ahead. Relatively little has been accomplished thus far, indicating that the session will wind up in a whirlwind finish, increasing the danger of the slipping or jamming through of undesirable measures.

Of primary interest to the profession is the Medical Practice Act itself. For many months there have been rumors of the probable introduction of various amendments to this act for the alleged purpose of improving the quantity or quality of civilian medical care for the duration. Foremost among these is the thought to authorize the issuance of temporary licenses to physicians from other states. It can be reported, however, that thus far no direct amendment of any kind has been proposed to alter the Medical Practice Act. One or more of such measures may be introduced before the close of the session, but at this time there is nothing positive to indicate that such will be the case.

Of equal interest is the usual crop of bills sponsored by the various drugless healing cults. These bills, while they do not seek to actually amend the Medical Practice Act, would, if enacted, diminish the scope of the Act by removing the cults from its jurisdiction and setting up separate practice acts for the respective groups. All of these bills have two common, primary objectives: (a) to free the cults from the supervision and control of the Medical Examining Committee of the Department of Registration and Education, and (b) to make it possible for the present unlicensed practitioners of these groups, who have not the minimum education prescribed by the Medical Practice Act, to secure a license from the State, thereby enhancing their prestige, and ending the ever-present danger of arrest and punishment for violating the law. To date bills of this nature have been introduced with respect to chiro-practic, physio-therapy, and naprapathy; other groups may appear upon the scene before adjournment. With one exception none of these bills have yet progressed beyond the stage of reference to a committee. That exception is the House chiropractic bill, which the Committee on Public Health has refused to recommend "to pass." The real danger period with respect to these proposals is just beginning, and much work must yet be done by this committee and by the physicians of Illinois if these bills are to be prevented from becoming law.

Also pending in the Illinois Senate is a bill providing for the creation of a Committee of Electrologists under the Department of Registration and Education, to examine, license, and supervise those seeking to engage in the practice of electrolysis, which is defined as the removal of superfluous hair by use and means of an electrically charged needle. As indicated in the bulletins of this committee, this bill is objectionable for numerous reasons. There is, first of all, no need for it, and its effect would be primarily to give the added prestige of licensure to those now practicing electrolysis, and to render more difficult the licensing of those applying after the effective date of the Act.

The House and Senate bills authorizing counties by referendum to create and maintain county and multiple-county health departments have passed from their respective committees to the House and Senate floors, where some controversy may develop.

Proposals have been made and discussions are now being had to render more certain the payment for medical and hospital care of an emergency nature rendered to old age assistance recipients. Progress reports on this important problem will soon be forthcoming.

A bill introduced into the House only a day prior to the writing of this report would amend the premarital examination law to permit physicians licensed outside of Illinois to give the examination. The present law provides that only physicians licensed in Illinois shall be qualified to do so. The bill has not yet been printed, and its exact purpose is not known, hence analysis of the bill will have to come at a later date.

Other bills of lesser interest and importance too numerous to mention in this report are now pending. Comment on them will appear in forthcoming bulletins.

On the Federal legislative scene, by far the most important development in recent years is the vast social security program embodied in the March 10, 1943 reports of the National Resources Planning Board. Much has been written and said of the "cradle to the grave" philosophy of these reports and of the resultant inevitability of the trend toward socialized medicine. What if anything, Congress will do in the near future along the lines of these reports is completely speculative.

Another item of interest from Washington is the current status of the attempts of the osteopaths to

secure recognition in the armed services. In 1942 Congress made funds available to the Navy Department "for the pay of commissioned medical officers who are graduates of reputable osteopathic schools." In February, 1943, Admiral Ross T. McIntire, Surgeon General of the Navy, stated that no osteopaths had yet been commission; that the only two osteopathic schools which would permit themselves to be examined were found lacking in several important respects, and had refused to make suggested changes.

A bill which has already passed the Senate and is now in committee in the House provides that for the duration and for six months thereafter the United States Public Health Service may commission as reserve officers graduates of reputable osteopathic colleges.

House Bill 1857, which has been reported favorably by the committee, provides that for the duration and six months thereafter the Army and Navy Medical Corps may commission women physicians.

This committee is maintaining constant contact with the activities of the Illinois Legislature. Every attempt is being made to keep the profession advised as to measures deserving opposition or support, and to keep the members of the Legislature fully informed as to the attitude of the profession on all bills in which it is interested.

Respectfully submitted,
ROBERT H. HAYES, M. D.,
Chairman.
HARRY OTTEN, M. D.,
MATHER PFEIFFENBERGER, M. D.,
Legislative Committee.

DR. ROBERT H. HAYES: I am sorry that our liaison member Mr. John Neal is not here; he will be here Thursday morning.

There are two matters being considered in the legislature, the Napropathy bill and the Physical Therapy bill. All these bills, including the Chiropractic bill, are asking for separate examining boards which would mean that the Medical Practice Act will have to be amended, which would be a serious matter at this time.

A new matter of legislation was introduced in the Senate which asked amendment of the Medical Practice Act to provide for the creation of a Committee of Electrologists under the Department of Registration and Education. Any amendment to the Medical Practice Act at this time would be a very serious matter.

REPORT OF MEDICO-LEGAL COMMITTEE

To the Members of the House of Delegates:

During the past year not many malpractice cases have been disposed of because so many of the physicians and surgeons have entered the Army and Navy service. Not only have defendants in malpractice cases entered the services, but it has been particularly difficult to try most any form of a malpractice case because the witnesses have entered some branch of the service. This of course includes internes, house physicians, and nurses who were present at the rendition of the particular treatments involved.

In view of the fact that so many of the members of the Society have entered the armed service of our country, a comparatively new field has been opened. While it is true that in the past doctors occasionally brought suit for their bills, in view of their leaving, it seems that they have been attempting to collect bills by law suits in order to clear their books. This influx in suits to collect fees for services rendered has resulted in many so-called "set-off" or "counter-claim" cases where the patients have claimed that the bill should not be paid because the treatments were not properly performed.

Many calls and letters have been received from physicians threatened with malpractice cases, all of which have been duly taken care of and a few of which have resulted in law suits. These law suits have been investigated and advice given to the member sued.

Respectfully submitted,
J. R. BALLINGER, M. D.,
Chairman.
T. B. WILLIAMSON, M. D.,
Secretary.
OSCAR HAWKINSON, M. D.,
C. U. COLLINS, M. D.,
A. H. GEIGER, M. D.,
Medico-Legal Committee.

REPORT OF MEDICAL EDUCATION AND HOSPITAL COMMITTEE

To the Members of the House of Delegates:

The present War is affecting medical education and hospitals far more profoundly than did the first World War. These effects are manifested in various ways.

I. MEDICAL EDUCATION:

1. In the report of this Committee last year it was stated that most medical schools had accepted and had introduced the accelerated program requested by the Army and Navy. The plan is, in general, working smoothly, and the first class under this new schedule was graduated in March of this year.

2. The students admitted to medical schools in June, 1942, and in March, 1943, were selected according to standards of scholarship and aptitude which have long been employed. The method of selecting medical students in the future has not yet been announced in detail. That changes will be made is certain. The probable nature of these changes is indicated in a resolution adopted by the Executive Council of the Association of American Medical Colleges on February 16, 1943. In this resolution the Executive Council states that "At present over 98 per cent of medical students have had at least three years of college preparation and a large majority have had four years.

Modern medical training is based on this amount of previous education. The Army proposes that immature college students be required to complete their basic college preparation in an over-condensed curriculum of three calendar years of accelerated medical instruction. Such a standard of premedical training does not meet the requirements for medical licensure in many states. Lowering the premedical period of preparation will not, of course increase the number of medical graduates per year because the professional schools are already operating at capacity production and full acceleration. The Association of American Medical Colleges is of the opinion that the return to the standards of premedical education of approximately forty years ago is not only against the best interest of the medical services of the Army but that such step is not necessary at this time. Sufficient numbers of students can be given a reasonable preparation to continue the production of competent physicians as a vital contribution of the war. — If the Army insists, however, upon going below that minimum, the medical schools of the country will cooperate completely with the Army and will continue to train as many medical officers and doctors as rapidly as possible and at the full capacity of the medical schools. Educational authorities of the country would regret such a decision by the Army because there appears to be no compelling reason or necessity for such a step at the present time."

3. The entrance of many members of faculties into the armed forces has greatly reduced the teaching personnel of many medical schools. Figures are not available for Illinois alone, but throughout the United States, 76 per cent of the schools reporting, have lost 20 per cent or more of the clinical teachers; in some schools the loss has amounted to 40 per cent. Sixty-seven per cent of the schools reported loss of less than fifteen per cent of the teachers of the fundamental branches. There are adequate reasons for this marked difference that need not be given in detail here. The standard of teaching has been maintained because the teachers remaining have willingly assumed added duties. However, loss of faculty members constitutes a very serious threat to the quality of instruction in our medical schools.

4. One of the more serious difficulties produced by the present War is the problem of financing of medical students. Relatively few medical students now have sufficient financial support to enable them to go through medical school without resorting to outside work, particularly during summer vacations, for earning money to aid in paying the expenses of their professional education. Now there are no more summer vacations and this source of income is cut off. This will be a very serious problem for many worthy and excellent medical students. The Congress has appropriated $5,000,000 as a loan fund for aid to students of Medicine, Engineering, Chemistry and some other branches. But the portion of this sum allotted to medical students will probably be inadequate for their needs.

5. Relatively few changes have been made in the regular medical curriculum, particularly in the work of the preclinical years. Alterations in stress and the intercalation either of material or of short courses into the curriculum without eliminating or shortening the regular courses have been the usual method. In Physiology, more time is devoted to a consideration of the effects of changes in atmospheric pressure as in aviation; in biochemistry, war gases are introduced; in pathology more attention is directed to inflammation. trauma, burns and shock. In the clinical years, short courses are given in tropical medicine, and aviation medicine and greater attention is devoted to preventive medicine.

6. Research of the usual peace-time variety is almost at a standstill. Most of the research in many medical schools is now concerned with subjects that are important in military activities. Personnel for research is reduced for the same reason that the teaching personnel is reduced, that is, because many fellows and other young men formerly engaged in research have been inducted into the armed forces. Furthermore, the accelerated program has rendered almost impossible the participation of students in research as heretofore. Advancement in the science of medicine will continue during the War, but it will take a direction somewhat different from that of peace time.

II. HOSPITALS.

1. During 1942, the total number of hospitals in Illinois increased from 311 to 317, with an increase of three each in government and non-government hospitals. In general, all non-government hospitals are prospering. The average daily occupancy for this group of hospitals increased by almost 10 per cent over 1941 and 42 per cent over 1936.

2. With the increase in hospital population there has gone a decrease in the interne house staffs. The number of vacancies in house staffs is shown in Table I.

TABLE I

Vacancies in Intern and Resident Staffs in Approved Hospitals

1942

	Illinois		United States	
	Number	Per cent filled	Number	Per cent filled
Internships				
Offered	618		7959	
Filled	369	59.7%	5567	71.2%
Residencies				
Offered	347		3777	
Filled	248	71.5%	2633	70.0%
Assistant Residencies				
Offered	99		1885	
Filled	47	47.4%	1210	64.4%
Fellowships				
Offered	33		721	
Filled	18	54.5%	609	84.5%

In 1942 approximately 40 per cent of available internships were vacant and could not be filled for lack of recent graduates. However, the accelerated program of the medical schools will furnish one additional

complete class each four years. It will thus be possible for hospitals to fill more completely their house staffs than last year. However, they will have to accept these men at varying times during the year instead of, as heretofore, on January 1 and July 1.

3. There is no convenient or accurate means of measuring the quality of work done in a hospital. But one fairly reliable criterion is the percentage of autopsies performed on patients who die in the hospital. It is certainly true that the highest grade hospitals have the highest percentage of autopsies. The number and percentage of autopsies done during 1941 and 1942 in the hospitals in Illinois are shown in Table II.

TABLE II

Number and Percentage of Autopsies in Hospitals in Illinois

Autopsies in Hospitals in Illinois	1941	1942
Total deaths in all hospitals	37,310	37,337
Total autopsies in all hospitals	9,064	8,491
Percent autopsies in all hospitals	24.3%	22.7%
Total deaths in approved* hospitals	20,098	20,011
Total autopsies in approved* hospitals	6,798	6,514
Percent autopsies in approved* hosp.	33.8%	32.5%
Total deaths in unapproved hospitals	17,212	17,326
Total autopsies in unapproved hosp.	2,226	1,977
Percent autopsies in unapproved hosp.	13.1%	11.4%
Averages number of autopsies per		
approved hospital	87.2	83.6
unapproved hospital	9.7	8.6

*Approved or not approved by A. M. A. for internships.

There was a definite decrease in both approved and non-approved hospitals in 1942 as compared with 1941.

III. The committee has only one recommendation to offer; namely that every member of the Illinois State Medical Society use his influence and exert his efforts toward the end of maintaining (1) the present standards of medical education, and (2) the high standards of medical service in his private practice and in the hospitals of this State. Such exertions will be necessary if our confreres now in the armed forces are to return to the same standards of medical practice which they left to serve their country, and if the general population of the future is to have the same quality of medical service it has enjoyed in the past. War is always wasteful, — wasteful of materials that might be used for making life better, of lives that might make the world happier and of medical advancement that could make the world healthier. The organized medical profession can not prevent some loss in achievement and advancement, but it can, by taking thought and putting forth effort, reduce that loss.

Respectfully submitted,
J. P. SIMONDS, M. D.,
Chairman.
H. O. MUNSON, M. D.,
W. R. MARSHALL, M. D.,
Committee on Medical Education and Hospitals.

REPORT OF COMMITTEE ON MEDICAL BENEVOLENCE

DR. JOHN S. NAGEL: I did not make a written report for the simple season that the Secretary-Treasurer gave his financial report. I will have just a few words to say.

The total number of beneficiaries for the past year was eighteen; eight were women, ten were men. The total amount of benefits paid was $2,955.

What I want to talk to you more about is the makup of this Committee. We had a rather disastrous year. Dr. Palmer, the member from Rockford, moved out of the state without notifying anyone of his whereabouts. Papers that should have had his attention caught up with him in Denver. The man appointed to take his place, Dr. H. A. Beam of Moline, was taken ill, went to a hospital in St. Louis and expired. After some time some papers which had been sent to him for review were found in his grip down in the hospital. This in my opinion is altogether wrong. My suggestion is to make this what I call an impersonal committee. Inasmuch as there is a vacancy on the Committee my suggesion is that Dr. Harold Camp be elected as the third member, Dr. Hulick being the other member. In that way it will throw the whole thing over into the hands of the Secretary. He has help which neither Dr. Hulick or I have. We do not have the follow-up service. We advise that someone be given assistance for six months and at the end of that time we have no way of follow-up to see whether he still needs assistance; the papers have been forwarded to Dr. Camp and we do not know who are the sponsors. I think that work should be assigned to Dr. Camp, so that when the six months is up he can look up the sponsors and find out whether the recipient still needs help. In doing that I think we will perform a greater service to these people than we are doing at the present time. The payments to some people have been stopped because they have not been properly investigated. This whole matter should be placed in Dr. Camp's office. He is quite willing to keep track of all this material and to keep in touch with these people. We want to help these people; on the contrary we do not want to keep on giving aid to some-

one who has passed out of the period of needing aid which has already happened.

It is quite surprising that sometimes it requires very little aid to make some of these people happy. Dr. Coleman could tell you of an old man in his district who has been aided. Widows with children have been helped. There was a Chicago doctor, some 88 years old who died of sclerosis of the brain and who had been incarcerated for a long time at Dunning. He did not have a cent, nor did he have any relatives that could aid him. If we had not given aid he would have been buried in the pauper's field. I went before the State Council and obtained $50.00 and then before the Board of Trustees of the Chicago Medical Society and obtained $50.00. This old doctor was an honorable member of our Society at one time, but he lived to be 88, and he was unable to earn any income. We found an undertaker who agreed to give him a decent burial for $100.00. I am telling you these little things because I want you to know the work I am doing. That is why I think it should be placed in the hands of the Secretary and acted upon in what I call an impersonal way. It does not matter who goes on the Committee the work will still be carried on in the office of the Secretary. I would like to see this House of Delegates allocate this matter into the hands of the Secretary.

I would like to ask Dr. Hulick to say a word.

DR. C. H. HULICK, Shelbyville: I agree in the remarks of Dr. Nagel that it should be in the hands of the Secretary of the State Medical Society. The records will always be there whenever anything is needed.

REPORT OF COMMITTEE ON ARCHIVES

To the Members of the House of Delegates:

Your committee has but little to report at this time although history is being made now which will be priceless in the years to come. Appeals have been made to the component county medical societies to send to the committee information concerning not only the medical pioneers of their respective counties but also information relative to physicians in the service of their country in the present World War.

Photographs of members in service as well as the early physicians should be placed in the archives of this Society, and your committee would respectfully recommend that each county society select one member to act as a local Committee on Archives, and solicit data, photos, minute books of early medical meetings, newspaper clippings and other records which will be invaluable in the future.

From our experience in making solicitations by mail and by personal interview, it is our firm belief that more can be accomplished through local efforts by a county society member of this committee than through any other method. We therefore respectfully recommend that this House of Delegates give serious consideration to the above proposal so that no time will be lost in the collection of medical historical data.

Respectfully submitted,
D. D. MONROE, M. D.,
Chairman,
P. J. McDERMOTT, M. D.,
CARL E. BLACK, M. D.,
Committee on Archives.

REPORTS OF COUNCIL COMMITTEES

REPORT OF EDUCATIONAL COMMITTEE

To the Members of the House of Delegates:

The program carried on by the Educational Commitee during this past year was planned to reach a maximum number of people with a minimum demand upon individual doctors of the state. Hundreds of doctors who have contributed so generously of their time and talents to the work of the Committee are now in service and those left at home have been much occupied with their civilian practice. This condition necessitated some changes in the policies of the Speakers' Bureau which heretofore had arranged programs for all types of lay audiences throughout the state. It was necessary to insist that lay organizations promise an audience of at least fifty adults, that a month's notice be given, and that the meetings be made community affairs whenever possible.

In spite of these restrictions, 220 programs were arranged for school assemblies, all types of clubs, church groups, Parent Teacher Associations, and community meetings. From reports received, it is estimated that approximately 50,000 Illinois people heard these health talks. The type of subjects indicated that the War held first place in the minds of the people for the most popular were talks on the War Effort, Care of our Soldiers, Nutrition, Care of Civilians, the Newer Things in Medicine, Blood Plasma, the Sulfonamides. A number of programs were planned where a demonstration of the Kenny Treatment of Poliomyelitis was presented by a doctor and nurse.

The secretary was invited to appear before the program chairmen of the Illinois Federation of Women's Clubs to explain the services of the Educational Committee. Special programs in the field of Vocational Guidance were arranged for high school seniors. Speakers were scheduled for the Annual Meetings of the Illinois Congress of Parents and Teachers, the Illinois Federation of Women's Clubs, the Annual Clinical Meeting of the Chicago Dental Society, Laity Day meetings of Women's Auxiliaries.

The Committee cooperated with the sponsors of Youth Week, Dental Health Week, Mothers' Day, Cancer Month, Summer Round-up.

The Bureau of Health Education of the American Medical Association cooperated with the Committee and Doctors W. W. Bauer and Paul Teschner willingly helped us whenever possible. Their assistance enabled us to fill some very important speaking appointments.

Industrial Health: During the year great emphasis was laid upon industrial health, the question of absenteeism, et cetera. Here the Committee found a new field of endeavor which resulted in some fine cooperation between industrial plants and organized medicine. Letters were sent to physicians of large industrial plants offering to furnish them with copies of the "Do You Know" column for publication in plant publications and for posting on bulletin boards. Many interesting letters were received and because of their enthusiasm, comments from a few are listed:

"We have a bulletin board in our 18th Street Fred Harvey Commissary and I am sure that your 'Do You Know Column' will be helpful to our employees. By all means place my name on your mailing list and I will see to it that your bulletins will be placed on our bulletin boards not only in the Commissary but also our restaurants and dining cars."

"Would you please place my name on your mailing list. I would be grateful if you would please send me two copies of every bulletin sent out so that WE CAN HAVE THEM MIMEOGRAPHED AND GIVEN TO ALL THE EMPLOYEES."

"Think they are fine. Would be glad to have my name on mailing list and please send me about six copies each time. I am Surgeon for Leheigh and Marquette Cement Plants here."

"The 'Do You Know' bulletins are O. K. I would like to have copies for each of the following Industrial Plants (he listed six) as well as one for my own office."

"I find that I can use THIRTY 'Do You Know' bulletins, same to be placed on the bulletin boards in our various departments."

12,288 COPIES of material have gone to these industrial plants in the last twelve months.

Recruiting: Last spring and summer the office assisted Colonel Olmstead in arranging recruiting programs throughout the state. Postal cards were mimeographed and mailed to thousands of physicians, newspaper releases were prepared. We understand that this service materially aided in promoting these meetings.

Letters carrying the seal of the Society were furnished hundreds of doctors applying for commissions in the Army and Navy. Hundreds of telephone calls were taken care of.

Much assistance was given to those working on the Procurement and Assignment of Physicians.

Teachers' Examinations: There is a new law in Illinois to the effect that all teachers must have a physical examination at the time they apply for their certificates and again in four years when certificates are renewed. Last fall the Secretary of the Illinois State Examining Board submitted a physical examination form to the Committee. This was turned over to a special committee from the Council for revision. Unfortunately there was considerable delay in obtaining the revised copy, but it has been turned over to the Board. We do not know if the revised examination form is to be adopted for use in Illinois.

Radio: 35 Radio talks were given. A new feature of those programs were the dialogues presented by doctors and their daughters. They were very popular. Unfortunately the Committee had to release its time over the air. Station WJJD had given time since 1928 and on September 1st the Manager wrote the Committee: "I regret exceedingly that the great pressure of war agency requests for radio time makes it imperative that that we cancel the Illinois Medical Society programs for the duration of the war. Your program has been until now, the only one left on the station's public service records that is not directly associated with the war effort, but we have felt that its value was sufficiently great to warrant this consideration. However, this is no longer possible and it becomes imperative that we conclude the series as of your broadcast of September 17th. I sincerely hope that the conclusion of the war will find you back with us again."

Newspaper Releases: 17,975 copies of material were sent to Illinois newspapers. Included in this number were the regular health column sponsored by the various county medical societies and special new stories of medical meetings. Clippings indicate that the material is widely used. The policy of the Committee is to furnish newspaper editors with up to the minute news on health matters, not to flood them with material which may be of no special news interest.

225 newspapers of Illinois carry regularly the health column released by the Educational Committee.

The Science News Letter for February 27, 1943 on page 140 devoted one entire column to an article released by the Educational Committee. The magazine has nation wide circulation and this was the first time that it had devoted space to a release of the Committee.

"Do You Know" Columns 105,000 copies of the Do You Know Column were released to all libraries of the state and to a large and representative lay list. The material is used in many different ways, for instance:

Superintendent of Schools — "Will you please send me nine copies of your mimeographed material with each mailing. I will see that these get to the proper teachers. We found them valuable in our teaching of physical education and health education last year and want to continue with them this year."

Coordinator of Safety Education Chicago Board of Education — "I wonder if I could be put on your mailing list for news releases. Some of this material I find is very pertinent to the field of safety."

State Teachers College — "We received your copies of Do You Know bulletins last year and would appreciate it if you would send us fifteen copies this year for our health and education class."

Supervisor Service Curriculum University of Illinois — "I would like very much to have you continue sending me copies of your bulletins. I will need bulletins for 30 members of my class. I might say that I find these bulletins very helpful and the students have expressed interest in them."

Parent Teacher Association — "Please send 300 copies of the Article 'Will Your Child Be Ready' for distribution to the mothers at our March meeting."

District Health Chairman — "We appreciate these sheets of valuable information so much. I have had so many requests for them. Many of our chairmen are using them for distribution at monthly meetings. They are reviewing them at meetings and discussing the topics."

Home Bureau — "I have a health chairman in each of my 16 units of Home Bureau in Iroquois County. Would it be possible for you to mail 16 additional copies to me each month."

Area Project Supervisor — "We will be pleased to receive regularly your releases for the use of our central office supervising 18 War Information Centers in this area."

One school in Chicago mimeographed 1,000 copies of each of the articles which the children took home to their parents.

SIXTY new *"Do You Know"* articles were written during the year.

This has been a most successful undertaking and has brought the story of good health to thousands of Illinois citizens.

The Chicago DOWNTOWN SHOPPING NEWS, a paper which goes to every home in Chicago and all suburbs is now carrying this column as a regular feature. Here the material will reach people who would never read a daily newspaper nor hear a talk on health.

PACKAGE LIBRARIES: More package libraries were sent out than ever before in the history of the Committee. Many schools used the material, people taking first aid courses used the libraries, women preparing programs for women's clubs, even students writing theses asked for the material. It is interesting to note that package libraries on "State Medicine" are frequently requested. One high school student wrote, "I am preparing a paper on Immunization. I was assigned this topic by a health teacher at Parker High School who told me you would give me information."

COUNTY MEDICAL SOCIETIES: The Committee continued to give very definite service to county medical societies. This is reported in detail by the Post-Graduate Education and Scientific Service Committees. Thousands of notices were mineographed and sent to doctors announcing meetings of county medical societies and the special Post-Graduate Conferences. Special publicity was given all of these programs. Secretaries and presidents have been kept informed of services available in the office of the Educational Committee.

MISCELLANEOUS: The Committee was invited to exhibit at the Annual Meeting of the Illinois State Nurses Association. It in turn requested the State Department of Public Health to send Doctor Fall's exhibit on Abortions. This exhibit was very well received. The movie "When Bobby Goes to School" was secured for many Parent-Teacher Associations of the state. Other films were secured and recommended to lay groups from the State Department of Public Health.

The series of articles "Leave 'Em Where They Lie" have continued to be popular and requests for copies have come from safety engineers from all sections of the country.

The Committee has cooperated with other Committees of the Illinois State Medical Society. Its office has served the Journal, the Legislative Committee, Office of Civilian Defense, The Maternal Welfare Committee, The Committee on Arrangements, The Old Age Assistance Committee and the Secretary.

ANNUAL MEETING: The Chairman of Publicity for the 103rd Annual Meeting of the Illinois State Medical Society has used the office of the Committee as headquarters. Special publicity has been given as follows:

450 Posters to hospitals in Illinois and cities of adjoining states.

Releases to all county and branch society bulletins.

Releases to Associated Press and United Press.

Special invitations to all army and navy camps in Illinois.

Notices to journals of adjoining state medical societies.

Special material to presidents and secretaries of county medical societies.

Copies of scientific papers secured and abstracted for the press.

SUMMARY: The program of the Educational Committee has been carried on through personal contacts, the radio, the press, movies and through the spoken word. Associations made with lay groups of the state have continued to be friendly and the Committee endeavored to give every help possible in meeting their problems. It is hoped that new impetus may be given this far-reaching program upon the return of Illinois doctors from the various war zones of the world.

Respectfully submitted,

R. R. FERGUSON, M. D., *Chairman*
JAMES H. HUTTON, M. D.,
ROBERT S. BERGHOFF, M. D.,
CHARLES P. BLAIR, M. D.,
G. E. IRWIN, M. D.,
JEAN McARTHUR, *Secretary.*

The Educational Committee

REPORT OF SCIENTIFIC SERVICE COMMITTEE
REPORT OF POST-GRADUATE COMMITTEE

To the Members of the House of Delegates:

Once again I am rendering herewith the combined

annual report concerning the activities of (1) The Scientific Service Committee and (2) The Post Graduate Committee.

SCIENTIFIC SERVICE COMMITTEE: This Committee carried on through the first year of the war, fulfilling the various functions for which it was originally created. While fewer demands were made upon it by the various counties throughout the State, as the appended itemized report will show, its activities were not sharply curtailed. It is interesting and gratifying to note that not even an all-out war has materially hampered the activities of this committee, nor appreciably lessened the requests for service.

The types of programs asked for and supplied, have altered radically, swinging towards War Medicine. This is brought out more forcibly in the report of the Post-Graduate Committee. The past year has proven not only how vitally important this Committee work is, but how seriously it is wanted by our county medical societies. When this war is won and the many members of our profession in the armed services return to civilian practice, they will not only find their Scientific Service Committee functioning, but will demand even greater and more diversified service.

COUNTIES AND HOSPITALS REQUESTING SPEAKERS:

Madison, Pike-Calhoun, McLean, Saline, Franklin, Adams, Peoria, Hancock, La Salle, Fulton, Henry, Vermilion, Sanagmon, Effingham, Kankakee, Will-Grundy, Macon, Marion, Greene, Macoupin, Rock Island, Williamson, Crawford, Kane, Tri-County, DuPage, Ogle, Logan, Schuyler, Bureau, Jersey, Champaign, McHenry, Christian, Sherman Hospital Elgin, Randolph, Winnebago, Stephenson, Livingston, Beardstown, Staff, Warren, Knox, St. Clair, Douglas, Perry, Jefferson-Hamilton.

SUBJECT REQUESTED FOR DISCUSSION:

Gastro-Intestinal Disturbances, Five Day Treatment of Syphilis, Obstetrics, Tuberculosis, Low Back Pain, Carcinoma, Diseases of the Blood, Uses of the Various Types of Insulin, Poliomyelitis, Organic Heart Disease, Urology, The Vitamin Controversy, Emergency Surgery, Rheumatic Heart Disease, Nephritis, Eczema and External Irritants, Liver Diseases, Arthritis, X-Ray and Radium Therapy, Orthopedics, Industrial Medicine, Gastro-Enterology, Pneumonia, Problems of the Newborn, Gall Bladder Disease, Gynecology, Hematuria, Chemotherapy, Endocrinology, Foreign Bodies in the Air and Food Passages, Proctology, Bright's Disease, Contagious Diseases, Eye, Ear, Nose and Throat, Upper Respiratory Infections, Middle Ear Infections, Dermatology, Pediatrics, Bronchoscopy, Use of Vitamin K in Obstetrics, Abdominal Surgery, Allergy, Venereal Disease Control, Gastric Ulcer.

(2) POST GRADUATE COMMITTEE — The House of Delegates authorized four Post-Graduate Conferences for this first war year. This was a rather sharp curtailment from the ten conferences held the previous year. It was a wise provision, however, because of the many uncertainties — such as availability of lecturers and transportation difficulties, etc. However, as in the case of county medical society meetings, three Post-Graduate Conferences were held and lost none of their popular appeal, were well attended, and future ones requested.

The first Post-Graduate Conference was held at Mt. Vernon in October, covering the southern section of the States, the second a week later in Peoria. The programs devoted to medical problems during war, covered the subject of Treatment of Burns, Soft Tissue Injuries, Fractures, Use of the Sulfonamides, Treatment of Shock.

The type of program proved so popular and timely that a similar one was requested and instituted at Rockford where many from Camp Grant were in attendance. The attendance at all three conferences, everything considered, was very gratifying.

In conclusion, it is the considered opinion of both the Scientific Service and Post-Graduate Committees, that this work is urgently important, is practical even in time of war and should be continued in the present stream-lined fashion, waiting for rapid expansion after the war.

Plans are now being made with Doctor Fred Adair of the Maternal and Child Hygiene Division of the State Department of Public Health for Wider knowledge of the many opportunities available in Chicago for post-graduate study, ward walks and clinics. Systematic distribution of this information will be made throughout Illinois so a doctor in Chicago even for one or two free hours or days may take advantage of the many opportunities. This promises to promote Chicago as one of the outstanding Post-Graduate centers of the United States.

Respectfully submitted,
ROBERT S. BERGHOFF, M. D.,
Chairman,
J. H. HUTTON, M. D.,
J. S. TEMPLETON, M. D.,
F. H. FALLS, M. D.,
WALTER STEVENSON, M. D.,
HARLAN ENGLISH, M. D.,
H. M. CAMP, M. D.,
Scientific Service Committee.
ROBERT S. BERGHOFF, M. D.,
Chairman,
R. R. FERGUSON, M. D.,
CHARLES P. BLAIR, M. D.,
F. GARM NORBURY, M. D.,
WALTER STEVENSON, M. D.,
B. E. MONTGOMERY, M. D.,
Post-Graduate Committee

REPORT OF MEDICAL ECONOMICS COMMITTEE

To the Members of the House of Delegates:

The war has temporarily changed many of our economic problems, and at the same time has created new ones and the post war period will call for readjustments. Of primary importance in the medical field are the following:

1. The Beveridge Report.
2. National Resources Planning Board Report.

3. Group Hospitalization.
4. Supreme Court Decision.
5. Medical Service Plans.

The Beveridge Report is a very voluminous report covering two hundred and ninety-three pages. It is a proposal for insurance covering every phase of life from "The Cradle to the Grave." It deals with the social problems of England in the past, present and the future, and, also, reviews to some extent similar problems in other countries, and the social programs that have already been put into effect. Space forbids any attempt to review this report, however, the following is a brief summary of the general scope of the plan particularly as it applies to medical care. The first quotation is one of introduction only and the second deals with the problem of Comprehensive Health and Rehabilitation Services.

"The first task of the Committee has been to attempt for the first time a comprehensive survey of the whole field of social insurance and allied services, to show just what provision is now made and how it is made for the many different forms of need. The results of this survey are set out in Appendix B describing social insurance and the allied services as they exist today in Britain. The picture presented is impressive in two ways. First, it shows that provision for most of the many varieties of need through interruption of earnings and other causes that may arise in modern industrial communities has already been made in Britain on a scale not surpassed and hardly rivalled in any other country of the world. In one respect only of the first importance, namely limitation of medical service, both in the range of treatment which is provided as of right and in respect of the classes of persons for whom it is provided does Britain's achievement fall seriously short of what has been accomplished elsewhere; it falls short also in its provision for cash benefit for maternity and funerals and through the defects of its system for workmen's compensation. In all other fields British provision for security, in adequacy of amount and in comprehensiveness, will stand comparison with that of any other country; few countries will stand comparison with Britain. Second, social insurance and the allied services, as they exist today, are now conducted by a complex of disconnected administrative organ is, proceeding on different principles, doing invaluable service but at a cost in money and trouble and anomalous treatment of identical problems for which there is no justification. In a system of social security better on the whole than can be found in almost any other country there are serious deficiencies which call for remedy."

COMPREHENSIVE HEALTH AND REHABILITATION SERVICES. ASSUMPTION B.

"The second of three assumptions has two sides to it. It covers a national health service for prevention and cure of disease and disability by medical treatment; it covers rehabilitation and fitting for employment by treatment which will be both medical and post-medical. Administratively, realization of Assumption B on its two sides involves action both by the departments concerned with health and by the Ministry of Labor and National Service. Exactly where the line should be drawn between the responsibilities of these Departments cannot, and need not, be settled now. For the purpose of the present report, the two sides are combined under one head, avoiding the need to distinguish accurately at this stage between medical and post-medical work. The case for regarding Assumption B as necessary for a satisfactory system of social security needs little emphasis. It is a logical corollary to the payment of high benefits in disability that determined efforts should be made by the State to reduce the number of cases of which benefit is needed. It is a logical corollary to the receipt of high benefits in disability that the individual should recognize the duty to be well and to cooperate in all steps which may lead to diagnosis of disease in early stages when it can be prevented. Disease and accidents must be paid for in any case, in lessened power of production and in idleness, if not directly by insurance benefits. One of the reasons why it is preferable to pay for disease and accident openly and directly in the form of insurance benefits, rather than indirectly, is that this emphasizes the cost and should give a stimulus to prevention. As to the methods of realizing Assumption B, the main problems naturally arise under the first head of medical treatment. Rehabilitation is a new field of remedial activity with great possibilities, but requiring expenditure of a different order of magnitude from that involved in the medical treatment of the nation.

The first part of Assumption B is that a comprehensive national health service will ensure that for every citizen there is available whatever medical treatment he requires, in whatever form he requires it, domiciliary or institutional, general, specialist or consultant, and will ensure also the provision of dental, ophthalmic and surgical appliances, nursing and midwifery and rehabilitation after accidents. Whether or not payment towards the cost of the health service is included in the social insurance contribution, the service itself should:

(I) be organized, not by the Ministry concerned with social insurance, but by departments responsible for the health of the people and for positive and preventive as well as curative measures:

(II) be provided where needed without contribution conditions in any individual case.

Restoration of a sick person to health is a duty of the State and the sick person, prior to any other consideration. The assumption made here is in accord with the definition of the objects of medical service as proposed in the Draft Interim Report of the Medical Planning Commission of the British Medical Association:

(a) "to provide a system of medical service directed towards the achievement of positive health, of the prevention of disease, and the relief of sickness;

(b) to render available to every individual all necessary medical services, both general and specialist, and both domiciliary and institutional."

Most of the problems of organization of such a service fall outside the scope of the report. It is not necessary to express an opinion on such questions as free choice of doctor, group or individual practice, or the place of voluntary and public hospitals respectively in a national scheme. It is not necessary to express an opinion on the terms of service and remuneration of doctors of various kinds, of dentists and of nurses, except in so far as these terms may affect the possibility of diminishing and controlling sickness and so may affect the finances of the Social Insurance Fund. Once it is accepted that the administration of medical treatment shall be lifted out of social insurance to become part of a comprehensive health service, the questions that remain for answer in this report are, in the main, financial. Shall any part of the cost of treatment, and if so what part, be included in the compulsory insurance contribution? But, though that question is in itself financial, the answer to it may affect the organization of the service and may therefore depend in part upon views as to organization."

Domiciliary treatment and institutional treatment are discussed at considerable length, and also the financing of both. Space does not permit quotation.

It is further stated that the possible scope of private general practice will be so restricted that it may not appear worth while to preserve it.

"This review of some of the problems involved in establishing a comprehensive medical service makes clear that no final detailed proposals, even as to the financial basis of this service, can be submitted in this report. It suggests the need for a further immediate investigation, in which the finance and the organization of medical services can be considered together, in consultation with the professions concerned and with the public and voluntary organizations which have established hospitals and other institutions. From the standpoint of social security, a health service providing full preventive and curative treatment of every kind to every citizen without exceptions, without remuneration limit and without an economic barrier at any point to delay recourse, to it, is the ideal plan. It is proposed accordingly that, in the contributions suggested as part of the plan for Social Security, there shall be included a payment in virtue of which every citizen will be able to obtain whatever treatment his case requires, at home or in an institution, medical, dental or subsidiary, without a treatment charge. It is proposed that the sums derived from these payments shall be transferred to the department or departments concerned with the organization of the health service to meet part — it can only be part — of the total cost. But these proposals are provisional only, subject to review, in the light of the further inquiry suggested, in which organization and finance can be dealt with together. The primary interest of the Ministry of Social Security is not in the details of the national health service or in its financial arrangements. It is in finding a health service which will diminish disease by prevention and cure, and will insure the careful certification needed to control payment of benefit at the rates proposed in this report.

Assumption B. Covers not only medical treatment in all its forms, but also post-medical rehabilitation. In regard to the latter, as in regard to the former, it would be inappropriate here to discuss details of organization. During the preparation of this report, the practical problems of rehabilitation have been under consideration by the departments concerned and it is hoped that practical measures will follow. Rehabilitation is a continuous process by which disabled persons should be transferred from the state of being incapable under full medical care to the state of being producers and earners. This process requires close co-operation between the health departments of Labor and National Service. Whether this co-operation can be secured best by the setting up of an executive organ representative of both sides or by allocation of specific duties to each department, is a problem of departmental organization on which it would be inappropriate here to express an opinion. It is sufficient to put forward three general propositions:

(a) that rehabilitation must be continued from the medical through the post-medical stage till the maximum of earning capacity is restored and that a service for this purpose should be available for all disabled persons who can profit by it irrespective of the cause of their disability.
(b) that cash allowances to persons receiving rehabilitation service should be the same as training benefit, including removal and lodging allowances where required.
(c) that the contributions paid by insured persons should, as in the case of medical treatment, qualify them for rehabilitation service without further payment.

It will be consistent with the proposals made here to include part of the cost of post-medical rehabilitation of men injured in scheduled hazardous industries in the industrial levy of these industries, that is to say, to add a contribution towards the cost of this service to the amount of the levy."

The National Resources Planning Board report is a comprehensive report somewhat similar to the Beveridge Plan calling for a broad scope of insurance coverage. That portion dealing with medicine occurs under the general heading of Equal Access to Health and the following are discussed.

I. Elimination of All Preventable Disease and Disabilities.
 1. The Development of Adequate Public Health Services.
 2. Expansion of the Health Program for Mothers and Children.
 C. Protection of Factory and Farm Workers against Health Hazards.
 D. More Widespread Appreciation of the Importance of Health to the Individual and the Nation.

II. Assurance of Proper Nutrition for All Our People.
III. Assurance of Adequate Health and Medical Care for All.
IV. Economical and Efficient Organization of Health Services.

Space does not permit comment on the individual problems presented. In general they explain themselves, and, in effect, attempt to point the way for a better utilization of medical knowledge in all of the fields under discussion. This is, of necessity, to be accomplished by the expansion of federal activities in all branches and by federal money to carry on the work. The details are not specific. There is no definite statement relative to the free choice of doctor.

In addition to these two reports the Medical Planning Research Interim General Report, which is the result, of an organization of four hundred anonymous British physicians has just been published. It carries specific recommendations for a plan for the British people and sets-up a proposed plan of organization, and like the Beveridge Plan and the National Resources Planning Board asserts that medical service must be made available to all of the people.

It is obvious from these reports that there is a definite trend toward the socialization of medicine to be almost, if not, complete in Britain and the United States. The reasons set forth in all of these reports are well worth reading because they discuss the present economic problems that we are dealing with at the present time, and what we may look forward to in the future.

Group Hospitalization continues to grow in this country at a fairly rapid rate. There are now approximately eleven million members in the Blue Cross Plan throughout the country. Enough time has elapsed since their organization to make careful studies of their value and their ability to function on a sound financial basis under the present rate and the present services offered. If group hospitalization should continue to grow as rapidly in the next five years as it has in the last five years a fair percentage of our population would be covered by hospitalization.

Supreme Court Decision: At the present time one cannot pass judgment on the effects of the recent Supreme Court Decision. The decision did not state that the practice of medicine was a trade, but did state that the defendants were guilty under the Sherman Act of the restraint of trade. If this policy should become established throughout the country it would undoubtedly materially change our standard of medical duties, and prevent hospitalization from having the proper supervision of the type of work carried on in a hospital.

Medical Service Plans: There has been no great change in the medical service plans since the last report of this committee. Perhaps the latest and most important development is, that resulting from the war, in the Kaiser Plan which faced the responsibility of providing medical care to some hundred thousand people who had in a short period of time moved into Richmond, California. This resulted in the erection of a modern 170 bed hospital at Oakland which provided hospitalization for Kaiser employees on a basis of seven cents per day, payroll deduction. All types of cases have been treated since the organization of this plan. There was no provision made for the families of the employees and the California Physicians Service through their own prepaid health plan are offering their plan to the families. This plan is voluntary, however, it is reported that only twelve out of three thousand families at Chabot Acres Housing Project at Vallejo have failed to subscribe.

Continuous studies of the various plans and proposals discussed here should be made. It is evident that certain social and economic changes are on the way, and medicine must be prepared to discuss and act intelligently on such plans and proposals.

Respectfully submitted,

R. K. PACKARD, M. D., *Chairman*
E. P. COLEMAN, M. D.
RALPH P. PEAIRS, M. D.
H. M. CAMP, M. D.
CHARLES H. PHIFER, M. D.
G. C. OTRICH, M. D.
C. B. RIPLEY, M. D.
C. E. WILKINSON, M. D.
W. M. HARTMAN, M. D.
E. S. HAMILTON, M. D.
Committee on Medical Economics

REPORT OF THE VETERANS' SERVICE COMMITTEE

DR. PLINY R. BLODGETT: The Veterans' Service Committee has arranged to have a fine program after dinner tonight. Colonel Don C. Hildrup, who has seen service in Africa, will be the guest speaker. Dinner will be at 7 o'clock in private dining room 17.

REPORT OF FIFTY YEAR CLUB COMMITTEE

To the Members of the House of Delegates:

In January, 1938, the Council of the Illinois State Medical Society, realizing that many physicians in the state, had been practicing medicine for fifty years or more, and wishing to do them just honor, organized the Fifty Year Club. The Club is a phantom organization, without officers, dues or meetings. Those physicians, whether a member of the Society or not, who have been in the practice of medicine for fifty years or more, and are so recommended by their county society, are eligible to membership.

County societies throughout the state have been holding special meetings to honor these "grand old men of medicine" and the State Society Committee sends a lapel button and a framed certificate of membership for presentation.

We recommend that the county medical society in which the members reside should always sponsor the meeting at which these honors are conferred, unless they combine with some adjoining county medical society.

Since the annual meeting last year in Springfield, the following changes in membership have taken place:

Chicago membership May 1, 1942	107
New members during past year	48
Deaths during past year	7
Chicago membership April 30, 1943	148
Downstate membership May 1, 1942	148
New members during past year	4
	152
Deaths during past year	13
Total Downstate membership April 30, 1943	139
Total Membership April 30, 1943	287

It has come to my knowledge that there are a number of physicians throughout the state who are entitled to membership in the Fifty Year Club, who have not been so honored. They are men who have dropped out of practice, are not active in Society work and have been forgotten or neglected by the officers of the Society in the county in which they live. A few others who are actively engaged in the practice of medicine do not desire this public honor for fear it will put them "on the spot" by giving publicity to their advanced age. Since so many of the younger physicians are in the service of their country, many of the Fifty Year men, who should have retired, are now actively engaged in practicing their profession.

Whenever possible interesting highlights in the early days of medicine in Illinois are collected from these Fifty Year Club members, and the material is filed with other interesting data in the office of the Secretary of the Illinois State Medical Society.

The Fifty Year Club was organized in January, 1938, and the first member admitted to the Club was Dr. J. M. McClanahan, Kirkwood, who was graduated from the Chicago Medical School which later became Northwestern University Medical School in 1874. Dr. McClanahan died in 1941 at the age of 91. The last physician to whom a certificate has been issued is Dr. C. H. Voorheis of Crawford County. Dr. Voorheis graduated from Rush Medical College in 1893 and has practiced continuously in Hutsonville, Illinois ever since. He has served as President of his County Society and the Aesculapian Society and is still actively engaged in the practice of his profession.

Respectfully submitted,

ANDY HALL, M. D.,
Chairman.

DR. ANDY HALL: In my report I showed that during the past year in Chicago 48 new members were elected to the Fifty Year Club while downstate there were only 4. That means this, that while downstate has practically fifty per cent of the physicians in the State of Illinois they have been careless in recommending their old physicians for membership in this Club.

REPORT OF MATERNAL WELFARE COMMITTEE

To the Members of the House of Delegates:

On presenting the sixth annual report of the Committee on Maternal Welfare of the Illinois State Medical Society, it seems advisable to briefly tell of the organization and the work that has been done in the past year. The following physicians were selected by the various Councilors to constitute the Committee on Maternal Welfare of the Illinois State Medical Society for 1942:

Dist.	*Committee Member*	*Councilor*
1st	A. B. Owen, Rockford	Hughes
2nd	J. T. O'Neill, Ottawa	Cook
3rd	F. H. Falls, Chicago	
4th	Worling R. Young, Geneseo	Coleman
5th	R. Lynn Ijams, Atlanta	Peairs
6th	Milton E. Bitter, Quincy	Stevenson
7th	Lee O. Frech, Decatur	Neece
8th	Earl D. Wise, Champaign	Wilkinson
9th	T. B. Williamson, Mt. Vernon	Hall
10th	W. C. Scrivner, E. St. Louis	Otrich
11th	John F. Carey, Joliet	Hamilton

This Committee has met three times this year to discuss the program and plans to carry out the work of the Committee in their respective districts. The Committee also held two special meetings at the request of Doctor Fred Adair, Chief of Division of Maternal and Child Hygiene of the Department of Public Health, for the purpose of studying his program, and after a thorough discussion of Doctor Adair's program it was referred back to the Council of the State Society for final action. The meetings have been well attended and much interest manifested by all the members of the Committee. The following program was definitely worked out by a sub-committee for the guidance of the county chairman and the maternal welfare committees of each county in the State.

1. More emphasis should be placed on adequate prenatal care:
 a. Monthly visits up to the seventh month then every two weeks — history — physical examination including pelvic measurements — weight and dietary instructions. Laboratory work consisting of urinalysis, Kahn, blood count including red, white and hemoglobin, should be done, preferably on the first visit.
2. We recommend that each County Medical Society appoint a Maternal and Child Welfare Committee whose duties should consist of:
 a. Investigate maternal, fetal and early infant deaths for constructive study in reducing mortality. Post-mortems on neonatal deaths should be encouraged. This investigation to be carried out by the County Chairman and other physicians appointed by local medical society; all information pertaining to this study to be kept in the hands of the Medical Profession.

b. Have an adequate number of programs on maternal welfare and pediatric subjects before local society and hospital groups to meet the needs of that community.
c. Encourage the educational program among the nurses of the community by such means as moving pictures and special lectures and special invitations should be tendered them to attend obstetrical and pediatric programs before medical groups.
d. Encourage any improvement of local hospital facilities for better maternal care.

3. We suggest that the Chairman of the Maternal Welfare Committee be designated as the County Chairman and be responsible for the furthering of this program in his respective county with the cooperation of local medical society. We suggest that he appoint a permanent Maternal Welfare Committee composed of professional and lay groups to further the program of lay education.
4. Encourage postgraduate work and refresher courses among the physicians.
5. We recommend consultation in all Obstetrical complications.
6. Encourage programs on Maternal Welfare before hospital staff.
7. We recommend that physicians stress the danger of abortions.
8. Avoid indiscriminate use of Oxytoxic Drugs, especially in first and second stage.

At the July meeting the Committee held a detailed discussion on the subjects Routine Office Care of Expectant Mothers and Abortions. Following a motion, made and accepted, the Chairman appointed a subcommittee for each subject, to study and outline folders to be presented to the State Committee at the earliest possible date. The Committee accepted the findings of the sub-committees and at the request of the State Committee the Chairman presented the folders to the Council for approval. The Council approved both folders and they have been printed by the State Society and are now being distributed to the profession and laity throughout the State.

Your Committee feels that much good has been accomplished during the past six years. There has been a definite decline in mortality of mothers and babies. While the Committee has not been so active this year, due to war conditions, the results of its labor are noticeable in every section of the State. We feel it highly important that the work of this Committee should be continued indefinitely.

Respectfully submitted,

T. B. WILLIAMSON, M. D., *Chairman.*
JOHN F. CAREY, M. D., *Secretary.*
A. B. OWEN, M. D.
J. T. O'NEILL, M. D.
F. H. FALLS, M. D.
WORLING R. YOUNG, M. D.
R. LYNN IJAMS, M. D.
MILTON E. BITTER, M. D.
LEE O. FRECH, M. D.
EARL D. WISE, M. D.
W. C. SCRIVNER, M. D.

DR. T. B. WILLIAMSON: I want to call your attention to the Maternal Welfare luncheon at 12 o'clock tomorrow in private dining room 18. We have a very interesting program consisting of a round table discussion on obstetrics by Drs. Frederick H. Falls, M. E. Bitter and J. T. O'Neill.

REPORT OF COMMITTEE ON MEDICAL CARE OF PUBLIC ASSISTANCE RECIPIENTS

To the Members of the House of Delegates:

Your Committee wishes to point out again that the supervision of medical care of the various indigent groups in this state was, prior to the year 1941, vested in a number of committees of the Illinois State Medical Society. In 1941 the House of Delegates authorized the creation of an Advisory Committee on Medical Care, its function to include supervision of medical care of all public assistance recipients in the State, namely: RELIEF, W.P.A., BLIND, OLD AGE ASSITANCE, and AID TO DEPENDENT CHILDREN.

During the past year, war activities have been responsible for a great decline in the number of persons in Illinois receiving public assistance. As of March 1, 1943, the total remaining numbered approximately 345,571. The decline was largely in the Relief and Works Project Administration, and was considerably greater in Chicago than in the rest of the State. There has been little change throughout the state in the volume of Old Age Assistance. There has, however, been a small increase, 2,260, in the number of Aid to Dependent Children case load, 57,603, is the second largest in the United States. (EXHIBIT C)

While it is true that there has been a slight decrease in Old Age Assistance in the past few months, it is the opinion of most people that when the war is over and selective service is discontinued, the Old Age Assistance rolls will again show a definite and steady increase.

There are at this time in the State of Illinois about 1,800 people remaining on W.P.A. These are being rapidly absorbed.

In presenting this report we have divided it into two sections, one pertaining to downstate, and the other to Cook County. The section on downstate, by reason of its scope and the number of counties involved, must be presented in rather general terms. In Cook County the Relief program has been in operation and well-organized since 1934; when the Social Security program was organized in Cook County in 1941, it had the benefit of the wealth of experience gained in the administration of medical care since 1934 by the Advisory Committee to the Illinois Emer-

gency Relief Commission, later to Chicago Relief Administration, now officially the Chicago Welfare Administration. This has been of inestimable value in the development of this program.

DOWNSTATE RELIEF

The calendar year 1942 showed a great change in home relief cases. In Illinois, excluding Chicago, there was a drop of 41.9 per cent from December 1941 to December 1942. The medical and hospital costs throughout the State accounted for 21.9 per cent of the total cost of relief in Illinois, excluding Chicago where private charity funds are available. The counties showing the highest percentage of dependency were Pulaski, Franklin, Cass, Saline, Williamson, Massac, Perry and Scott.

It should be remembered that because of the great cost of relief in the state prior to 1936, the legislature at that time transferred the responsibility of relief from individual counties to local governmental units, numbering 1,455 (1437 townships, 17 commission forms of government, and the City of Chicago). Each of these units was authorized by law to levy 3 mills on every dollar of taxable property within the unit. Units which levied 3 mills became eligible to receive an allocation of state funds, provided the local revenues realized from this levy were insufficient to meet the requirements.

Medical care is now considered a legitimate need and should be met from state funds which are allocated to supplement local revenues. In our study of the relief problems throughout the state we have made a careful analysis of the channels through which medical care is administered. We have again indicated those counties where clients have free choice of physicians and those where medical care is furnished under other conditions. It is to be regretted that there are still a few sections in the state where relief clients do not have free choice of physicians.

DOWN-STATE — OLD AGE ASSISTANCE AND AID TO DEPENDENT CHILDREN.

There are at this time in the State of Illinois, outside of Cook County, approximately 98,000 Old Age Assistance recipients, and approximately 31,500 receiving Aid to Dependent Children. These people are distributed throughout the state as indicated in EXHIBIT C.

Your Committee would like to state that on the basis of the information furnished by the representatives of the Department of Public Welfare, the following statement is made regarding the program to the different counties down-state:

In about 84 of the 102 counties (exclusive of Cook county) there is an active local advisory committee, cooperating fully with the Department of Public Welfare. In 6 counties, while the local committee is inactive from the point of view of the Department, the physicians are rendering service to patients in accordance with the program; (Kane, DuPage, Knox, Piatt, Jo Daviess, Crawford). In five counties (Stephenson, Shelby, Edgar, Clark, Johnson) physicians review only Aid to Dependent Children cases but are otherwise cooperative with the Department. In four counties (Lake, Madison, Perry, Massac) the physicians are not participating actively in the program. The Committee regrets that it does not have a report from the Advisory Committee of each county medical society. In our opinion this is something that should be included in the future reports.

COOK COUNTY

Inasmuch as the Chicago Medical Society is the official medical society for Cook County, and since all public assistance programs in the County are at the present time supervised by the Advisory Committee of the Chicago Medical Society, your Committee has herewith included the reports of that Committee as the official report for Cook County.

RELIEF

The relief program in Cook County is divided into two parts; that of the metropolitan area proper, which has been under the supervision of the Chicago Relief Administration; that of the outlying districts of Cook County, in which relief is supplied by townships the same as it is in the downstate areas. In the metropolitan area this program became effective in 1934; while the name of the supervising agency has been changed several times, the organization itself, and the personnel of the Medical Advisory Committee have undergone very few changes. Recently the name of the Chicago Relief Administration has been changed to the Chicago Welfare Administration.

The fact that the Chicago metropolitan area has been the center of the chief war activities of the United States has been responsible for a rapid drop in the relief load, which has declined from 51,072 in April, 1942, to 30,779 in February, 1943. (These are cases, not persons).

The termination of W.P.A. presented a major problem to the Chicago Welfare Administration. It was evident that some organized program would be necessary to place those released from this program in employment. Medical examinations by medical review units revealed that 90 per cent of those classified as employable had been diagnosed as having some physical defect with definite work restriction; 85 per cent of immediately employable white males and 64 per cent of employable negroes were more than 45 years of age. The absorption of this army of unemployed was accomplished through employment service and the Governor's Committee; the administering agency concerned itself with the handicapped employable. Placement of the latter was accomplished through medical review units and social service departments; placement being based upon physical capacity.

OBLIGATIONS INCURRED FOR MEDICAL CARE IN 1942.

Type of Care	
Clinic care	$215,524.80
Dental care	57,148.60
Hospital care	202,349.25
Medical appliances	29,391.84
Convalescent care	68,546.37
Physicians' fees	131,665.50

Home nursing service	24,269.30
Miscellaneous items	31,248.56
Total	$832,634.12
Drugs	72,489.90

More than 300,000 clinic visits are represented by the year's clinic care at 70 cents per visit. Hospital care represents 51,000 days of hospital care at a $4.00 rate. A total of 686 persons were provided with convalescent care through these facilities, the average number during any one month being 202. 169 persons were cared for in nursing homes. Obligations for physicians' fees paid for a total of approximately 89,000 home visits, plus obstetrical care for 60 patients for whom home delivery was approved. Dental care was provided by the dental examing unit. 9,500 examinations were completed during the year; about 5,500 persons were assigned to dentists for treatment, and in 900 the need for dentures or other work was indicated, some of which required special authorization.

The Chicago Welfare Administration medical service included maintenance of two examining units, one of which functioned as part of the program for the supervision of children applying for or receiving home care through the Child Placement Service. The other supplemented the Chicago Welfare Administration employment program by certifying relief recipients as physically able or unable to work. The children's examining unit completed 21,000 routine physical examinations during 1942, making in addition 42,000 laboratory tests and administering 12,000 immunizations against smallpox, diphtheria and tetanus to foster home children. In the Central Medical Review Unit 30,000 work classifications were established during the year, based on reports from physicians and medical agencies, or on examinations by Chicago Welfare Administration physicians attached to the unit. 17 per cent of these classifications indicated physical ability to perform any kind of work.

During the past 11 months 300 physicians have resigned from the roster, the majority to enter military service. The decrease in relief load made it possible for the Chicago Welfare Administration to concentrate its six district offices into three, thus reducing administrative costs. The lower number of relief clients also made it possible to revise the rules and regulations covering medical care. The latter was made possible through the Advisory Committee and the Medical Service of the Chicago Welfare Administration. Under the new rules the patient calls the doctor direct rather than through the social workers, which tends to further the physician-patient relationship as well as reduce administrative costs.

The medical relief program in Chicago, as stated before, has been in operation since 1934. It is an example of what can be accomplished through co-operation of the medical profession and the administrating agency, and the continuity of personnel of the medical advisory committee. During this time many questions of policy have arisen upon which there have been differences of opinion, but through frank and open discussion between the Administration and the Advisory Committee these have always been amicably adjusted, with the result that the program in Chicago now represents one of the outstanding successes among such programs in the United States.

In concluding this report the Medical Advisory Committee of the Chicago Medical Society wishes to express its gratitude to the physicians of Chicago who have participated in the program and given so freely of their time and service in the care of the needy in this city. Also to Mr. G. J. Klupar, Administrator of Relief, Miss Alice Saar, Director of Medical Relief, her assistant Miss Dorothy Cornwall and their staff, for the valuable assistance in this program, and their careful consideration of the medical needs of these recipients.

COOK COUNTY — OLD AGE ASSISTANCE AND AID TO DEPENDENT CHILDREN

The Medical Advisory Committee of the Chicago Medical Society began to function with the Cook County Bureau of Public Welfare in August, 1941, cooperating with the Bureau in problems pertaining to the medical care of Social Security recipients in Cook County.

During the year 1942 this Committee met with representatives of the Bureau every two weeks. Its first task was the compiling of a roster of physicians in the County who desired to participate in the program. This was accomplished by mailing to all physicians within the County an application by which they might signify their wishes; these applications were then reviewed by the Committee. Many of these physicians have requested that their services be confined to their own patients; others may be assigned as requests for medical care arise; and many are available for many examinations in cases on which the Committee requests a complete and adequate medical history.

A great deal of time has been devoted to reviewing requests for medical care for individual patients in the Old Age Assistance group, and passing upon the eligibility of applicants for Aid to Dependent Children. Efforts have been made to simplify and clarify the problems pertaining to medical care on this program. The task of reviewing cases wherein physical or mental incapacity was given as the reason for determining eligibility for Aid to Dependent Children has consumed much time, and required careful scrutiny and evaluation of the evidence submitted in each individual case.

During the period from January 1942 to December 1942, 643 applications were received for aid under the Aid to Dependent Children program. Decisions have been rendered by the Committee on 498 cases; 145 cases were deferred pending further information. 180 cases were classified by the Committee as permanently incapacitated, either totally or partially; 164 cases were classified as temporarily incapacitated, that is, the case would be further reviewed at the end of a six or twelve month period. In 31 cases the Committee, after careful review, recommended that the applicant be not accepted for aid under this program. There are 26,372 Aid to Dependent Children recipients in Cook

OLD AGE ASSISTANCE AND AID TO DEPENDENT CHILDREN STATISTICS IN SELECTED STATES WITH PLANS APPROVED BY THE SOCIAL SECURITY BOARD, DECEMBER, 1942.

	Old Age Assistance		*Aid to Dependent Children*		
	Number of recipients	No. of recipients per 1,000 population 65 yrs. and over	Number of families	Number of children	No. of children per 10,000 population 18 yrs. and under
Total — U. S.	2,229.518	249	349,320	850,921	21
Illinois (a)	149,554	264	26,336	59,624	28
California	153,896	280	10,191	24,953	15
Colorado	39,213	472	4,924	12,346	35
Indiana	68,667	240	12,706	27,088	27
Iowa	56,616	245	(b)		
Kentucky	53,147	282	(b)		
Massachusetts	84,775	231	9,797	23,905	20
Michigan	89,608	273	17,653	44,116	28
Minnesota	62,196	293	7,807	18,811	22
Missouri	113,475	349	13,594	31,390	29
New Jersey	28,749	103	7,001	16,079	15
New York	114,860	126	24,228	49,013	14
Ohio	138,458	259	10,739	28,082	14
Oklahoma	78,099	541	17,889	41,713	50
Pennsylvania	94,165	140	38,607	97,708	33
Texas	181,581	526	11,870	26 646	12
Wisconsin	52,696	218	9,589	22,674	24

(a) Data furnished for February, 1943.

(b) Program administered under State law without Federal participation.

(EXHIBIT C)

County at this time. In this group some of the recipients receive supplemental funds from the relief administration.

There are now 53,070 recipients of Old Age Assistance in the County. The average grant per person has risen from $28.72 in January 1942, to $31.42 in December 1942. The Committee reviewed more than 1728 requests from physicians for medical care to this group during the calendar year. The Medical-Dental Sub-committee reviewed 47 cases in which dentures were requested. Consideration was given to each case from both the medical and dental standpoint.

It is the belief of this Committee that there should be developed within this program, plans for rehabilitation and employment of the partially incapacitated, so that these recipients could secure work for which they are fitted and be removed from public assistance rolls.

The Committee has consistently kept in mind the welfare of recipients under the program, the interests of the physicians who render medical service, and the conservation of public funds. In this connection, we believe that physicans should be cognizant of the fact that adequate information must be submitted in each case requiring medical care that comes before the Committee for review, i. e., as to disease or injury, onset, duration, degree of incapacity, whether partial, temporary or permanent, and prognosis. It has been necessary many times to request additional information on a given case, and in some instances to refer patients from public clinics to roster physicians for a complete detailed report.

The Committee wishes to express its appreciation to Miss Grace Fried, Medical Consultant, and Miss Louise Briscoe, her assistant, representatives of the Cook County Bureau of Public Welfare, for their assistance and consideration of the medical problems in this program.

Respectfully submitted,
CHARLES H. PHIFER, M. D., *Chairman.*
JULIUS H. HESS, M. D.
JAMES H. HUTTON, M. D.
FRED H. MULLER, M. D.
GEORGE W. POST, M. D.

SUMMARY

In summarizing this report, your Committee has pleasure in stating again that the number of persons on direct relief in the State of Illinois has been substantially reduced to its present level; also that medical care is being provided where needed in this group. We would also like to call attention to the fact that the supervision of medical care under direct relief is much less complicated than under some of the other categories that will follow. There are five groups of people in the State who are recipients of public assistance — RELIEF, W.P.A., BLIND, OLD AGE ASSISTANCE, and AID TO DEPENDENT CHILDREN. These are divided into two categories, those under direct relief and those who come under the Social Security laws — Old Age Assistance and Aid to Dependent Children, and the Blind. The fact that

Old Age Assistance and Aid to Dependent Children are administered under the Social Security Act makes these groups subject to different rules and regulations than recipients under direct relief.

The Social Security Act passed in 1935 was the first national enactment of a program for permanent care of dependent groups. It stipulated that any state desiring to participate in federal funds and the care of people in these categories should pass an enabling act that conformed to the Social Security Act, which enabling act must be approved by the Social Security Board before being submitted to the state legislature. In accordance with these provisions, the State of Illinois passed two such acts:

1. The Old Age Assistance Act, which was approved June 29, 1935 and later amended January 3, 1936.

2. The Aid to Dependent Children Act, which became a law on June 30, 1941, and became administrative in October, 1941.

The certification of social security recipients is a matter of investigation and administration of the Department of Public Welfare. Applicants for Old Age Assistance must be beyond the age of 65. To qualify for Aid to Dependent Children, it is necessary that children shall have been deprived of parental support or care; no adult allowances are made. The Aid to Dependent Children Act is broader in its scope than the Mothers' Pension program, which it has superseded.

The laws governing the administration of any program covered by the Social Security Act are extremely rigid and inflexible. The Federal Government will match dollar for dollar the amount appropriated by the State Government ONLY when payments are in cash direct to the recipient or his legally appointed guardian. It will NOT match funds otherwise paid by the Department of Public Welfare.

Inasmuch as the beneficiaries of the Social Security Act are not considered paupers, it was necessary for the State of Illinois to change its pauper laws. Prior to July 16, 1941, the law required that the county assume the financial burden of providing medical and hospital care and burial expenses of persons who did not come under the definition of paupers, but who lacked sufficient money or property to meet the costs of such care. Effective July 16, 1941, this law was changed to transfer the financial burden from counties to townships, except in the commission counties and the cities of Chicago and Cicero, in which no change was made.

Concurrently with this change in the law, another amendment was passed permitting the use of State relief funds for meeting expenses arising from large medical bills, hospital care and final illness, arrangements for same to be approved by the local administrator of relief.

The practical application of this amendment, in the opinion of this Committee, is the inability of physicians to get the local governmental unit to assume the responsibility of providing medical care or hospital care for a final illness, or large medical bills. Your Committee would like to point out that while the law provides that such bills may be paid by the local governmental unit, experience has shown that this is hard to realize. It is therefore imperative that a physician secure authorization for such service at the time he is called upon to render medical care.

It is obvious to those who are informed that the drafting of a medical program which must be limited by the rigid legislative specifications of the Social Security Act, and which still will not handicap the physicians either in his services or the collection of his fees, is a difficult task. During the past year this Committee has recommended setting up fees for various special services which may be required in connection with medical care. (EXHIBIT F). The Committee appreciates the fact that the fees paid under this program are not commensurate with those in private practice. They are, however, based on those paid for care of the indigent and semi-indigent groups in other states. We would also like to point out that provisions have been made whereby in any case requiring an excessive amount of care, the case may be submitted to the Advisory Committee for proper adjudication of the fee.

It has been the concensus of the majority of people who have studied the practical application of the Social Security Act that if it were to achieve the objectives which it was designed to accomplish, it would be necessary to enact legislation, either federal or state, to make the Act more flexible, or provide additional funds, before some of these restrictions could be overcome. It was the recommendation of this Committee in its last report that in the event the Social Security Act was not broadened, the medical profession and the Department of Public Welfare should seek the assistance of our State Legislature in providing supplemental funds so that direct payment could be assured to physicians.

During the past year an amendment to the Social Security Act was offered in Congress by Congressman Coffey, which would make direct payment to physicians possible. The bill was not acted upon and has been reintroduced in the present session. It is said that this bill compares favorably with the regulations of the Social Security Board with regard to medical care. The policy of direct payment to physicians, however, is still a controversial subject.

There has also been introduced before the Legislature in this State Senate Bill 233, by Senator H. M. Luckey of Potomac, and House Bill 241, by Representative W. O. Edwards of Danville, which would amend Sec. 14-3/4 of the Old Age Assistance Act and would place responsibility for providing emergency medical, hospital and burial assistance on the local relief authorities, thereby making it illegal for the Division of Public Assistance to grant assistance for emergency and other care direct to the recipient. These bills are now pending in the Legislature; up to the time this report goes to press there has been no action on them.

Your Committee has met with representatives of the Department of Public Welfare a number of times during the past year to assist in formulating policies pertaining to the medical program for Social Security recipients throughout the State, as well as to discuss

problems concerning individual patients. Throughout this time, efforts have been made to simplify the rules and regulations for medical care and to eliminate "paper work," in order to make the program as flexible as possible consistent with the rules and regulations under which it must operate.

SPECIAL SERVICES AND LABORATORY PROCEDURES

Added to the Fee Schedule Since March 15, 1942

A medical care allowance authorized by the County Department of Public Welfare, in addition to the office or home visit fee, may include an amount not to exceed that listed before for each service, when this additional charge is customarily made in the community.

(EXHIBIT F)

Abdominal paracentesis	$10.00
Antiluetic treatment (includes the drug)	1.00
Basal Metabolism	5.00
Blood analysis	1.00
Blood sugar	3.00
Blood Transfusion	10.00 to 25.00
Catheterization	1.00
Cystocopy	
Bladder inspection only	10.00
Bladder inspection with urethral catheterization and pyelogram	20.00
Diathermy (approved only for post-fracture cases)	10.00
Electrocardiogram	5.00
Foreign body in eye, removal of	1.00
Glaucoma treatment	3.00
Hydrocele, drainage of	5.00 to 10.00
Injections of bee venom for arthritis	1.00
Liver extract injection (includes the extract)	1.00
Sedimentation test	2.00
Spinal puncture and withdrawal of spinal fluid	5.00
Tear duct, dilation and irrigation of	5.00
Tissue examination and diagnosis	5.00
Unna's paste boot, application of	5.00
Urinalysis (chemical and microscopic examination)	1.00

In conclusion, your Committee expresses the hope that the members of the medical profession will carefully consider the many problems connected with a program of this type, and the many laws that limit its flexibility. We are of the opinion that some advancement has been made during the past year. We wish to express our gratitude to the physicians who have rendered medical care, served on committees, or offered helpful suggestions in improving this program.

Respectfully submitted,

CHARLES H. PHIFER, M. D.,
Chairman.
HAROLD M. CAMP, M. D.,
Ex-Officio.
E. P. COLEMAN, M. D.
EDWIN S. HAMILTON, M. D.,
Ex-Officio,
JULIUS H. HESS, M. D.
JAMES H. HUTTON, M. D.

SUPPLEMENTARY REPORT OF THE ADVISORY COMMITTEE ON THE MEDICAL CARE OF PUBLIC ASSISTANCE RECIPIENTS

The Advisory Committee on the medical care of Public Assistance Recipients would like to submit the following supplementary report. In the report we would like to call your attention to some changes which have taken place since we forwarded our report to be published in the annual report of the House of Delegates of the Illinois State Medical Society, namely: There has been a bill introduced in this session of the General Assembly of the State of Illinois which, if it becomes a law, will include the blind in the beneficiary category of Social Security clients in this State. They would thereby be included in the group of Public Assistance recipients.

There has also been introduced in this session by Senator H. M. Luckey of Pontiac, Senate Bill No. 233, likewise the companion bill, House Bill No. 241, by Representative W. O. Edwards of Danville, Illinois. These two proposed amendments to the Old Age Assistance Act were drafted by Mr. Acton, an attorney of Danville, Illinois. These bills would transfer the responsibility for providing emergency medical, surgical and hospital assistance for Old Age Assistance Recipients to local relief authorities, thereby making it illegal for the Division of Public Assistance of the Department of Public Welfare to grant medical care to Public Assistance Recipients.

In commenting upon these bills, it was the opinion of the Legislative Committee of the Illinois State Medical Society that while these bills did not reach the objective which we desired, in the absence of other bills they should be supported. Some of you remember a legislative bulletin to that effect.

In view of that decision the following letter was written at the suggestion of the Advisory Committee:

April 9, 1943

"Mr. Wallace A. Clark
Acting Superintendent
Division of Public Assistance
Department of Public Welfare
Springfield, Illinois

Re: Senate Bill No. 233, Introduced by Senator H. M. Luckey; House Bill 241, by Representative W. O. Edwards

Dear Mr. Clark:

"I beg to acknowledge your recent letter regarding the above bills, which are now pending before the Illinois State Legislature.

"In reference to your inquiry regarding my personal comment on the use of the word "emergency" in these bills, I personally would think that the word would have to be clearly defined, otherwise it would be very confusing in administering a pro-

gram under these bills. I desire to state that I have discussed the feasibility of these proposed bills with members of the Medical Advisory Committee, Legislative Committee of the Illinois State Medical Society, Members of the Council of the Illinois State Medical Society, as well as with some of the members of the society. It is their opinion that the present medical program is a source of constantly growing dissention among the members of the medical profession who are rendering medical care to Old Age Recipients in this State. This is due largely to present required procedures regarding authorization for medical care in acute and permanent illness.

"Much of it arises as the outgrowth of local Governmental unit or township supervisors failing to discharge their obligations in approving the bill for medical care and hospital service in those cases of final illness or where the bill for medical care or hospital service is larger than can be readily met by the monthly allowance.

"It is the unanimous opinion of the above medical groups that if this program is to furnish medical care to these people, the procedures by which they are obtained and the compensation for such services should be simplified and definitely provided for without controversy. In view of these facts, it is the belief of this group of physicians that the Department of Public Welfare should see that these bills are corrected so that the law will be constructive and the responsibility for medical and hospital care clearly defined.

"I shall appreciate having you discuss the recommendation with Mr. Rodney Brandon, Director of the Department of Public Welfare. I am sure the Medical Advisory Committee will be pleased to meet with Mr. Brandon and yourself to discuss these recommendations, if he so desires. I shall be pleased to hear from you and to know what disposition will be made of these bills.

"Thanking you and awaiting your reply, I am

Yours very truly

Charles H. Phifer, M.D."

It was then confirmed that these bills did not improve the provision for medical services and compensation your committee thought should be arranged for in present legislation. In view of these facts, we have arranged for a meeting on May 1 at the Palmer House, with Mr. Wallace Clark, Acting Superintendent, Division of Public Assistance, Miss Pearl Bierman, Medical Consultant, both of the Department of Public Welfare; Mr. Acton, the attorney who drafted the above bills; Mr. John Neal, Secretary, State Legislative Committee; Dr. Reiger and Dr. Bettag, the members of the Council Subcommittee on the Medical Care of Public Assistance Recipients; your Advisory Committee; and the stenographic secretary of the committee.

At this meeting we asked Mr. Acton to present to the committee what he thought would be accomplished by enactment of the above bills. Your chairman called their attention to the fact that this would place the administration of these bills to the local Governmental unit or township supervisor, an administrative point that has been controversial in this State for many years in medical care, since the majority of instances show that this type of administration fails to maintain the patient-physician relationship. General discussion followed.

Your committee desired further information regarding how the present plan for medical care of public assistance recipients was working and on April 27, 1943, requested the Secretary of the Illinois State Medical Society, Dr. Harold Camp, to send the following questionnaire to all of the County Medical Advisory Committees. Fifty-four counties replied.

1. How is the plan for the medical care of public assistance recipients working in your county at this time? There were 54 answers. 35, very well; 7, fairly well; 12, poorly.

2. What type of cooperation does the physician get from the County Welfare Department and the County Superintendent? 50 replied good; 3 fair; one, poor.

3. Do your supervisors cooperate in providing payment for bills due in last illness to recipients of old age assistance (so-called old age pensioners)? Eighteen replied yes; 11, only fair, 25, poorly.

Are the physicians of your county who have been approved for participation in your program caring for these people, old age pensioners and dependent children? 54 replied yes.

Remarks: Many feel the schedule inadequate, recipients do not understand the program, trouble of fees in final illness, compensation should be direct to the doctors. 8 thought the county setup all right.

Senate Bills No. 451 to 454 inclusive and House Bills 649 to 652 inclusive were introduced in the legislature to provide for the transfer of the Division of Public Assistance from the Department of Public Welfare to the Illinois Public Aid Commission. In view of this contemplated change, the committee was of the opinion that a meeting should be held with these divisions. Accordingly a meeting was arranged on May 17 at the Palmer House, at which were present Mr. Rodney Brandon, Director of the Department of Public Welfare, State of Illinois; Mr. Raymond Hilliard, Executive Secretary of the Illinois Public Aid Commission; Mr. Wallace Clark, Acting Superintendent, Division of Public Assistance; Miss Pearl Bierman, Medical Consultant, Department of Public Welfare; Mr. John Neal, Executive Secretary of the Legislative Committee.

The object of the meeting was to discuss the question of the proposed transfer of the responsibility of administering the program of the Division

of Public Assistance to the Illinois Public Aid Commission, likewise to see how the program would be affected in the event it was transferred fom the Department of Public Welfare to the Illinois Public Aid Commission.

There was also discussed the question of the problems that would arise in the event that Senate Bill No. 233, (Luckey) and House Bill No. 244 (Edwards) were enacted as a law. This was a very interesting meeting. It was agreed by Mr. Brandon, Mr. Clark and Mr. Hilliard that regardless of whether the administration of the program remained the responsibility of the Division of Public Assistance in the Department of Public Welfare, or whether it would be transferred to the Illinois Public Aid Commission, they each and all agreed that there should be supplementary legislation providing funds for direct payment to physicians and hospitals for medical care in final illness. It was further agreed that supplementary legislation should be introduced arranging for a deficiency appropriation of $850,000.00, thus providing State funds (not Federal), so that direct payment could be made for these two categories.

It was also pointed out that if the so-called Luckey and Edwards Bills Numbers 233 and 241, would become a law, it would place the responsibility for medical care upon township supervisors throughout the State; that there would not be available Federal funds to match State funds, and all necessary monies would have to come from the State; that since 1936 there were only about 236 local Governmental units out of 1,455 in the State which are receiving state funds; that whereas the so-called Luckey and Edwards bills provided for placing this responsibility on local governmental units, we would like to call your attention to the fact that the responsibility is there now insofar as terminal illness is concerned, but many township supervisors have not admitted this responsibility and have not cooperated.

The Illinois Public Aid Commission is likewise opposed to the bills for financial reasons, administrative reasons, and from the standpoint of planning for the physicians and recipients. They felt the passage of these two bills would tend toward colonizing of these old age recipients in communities in which the townships had been receiving money instead of being distributed throughout the State.

The bills as they are introduced do not make any provision for funds to finance this work. It is estimated that it would also require a legislative appropriation of three to five million dollars to meet the requirements of these two bills in the event that they were to become a law.

In view of the above facts the committee felt they should not be supported and has asked the legislative committee to withdraw its support from House Bill No. 241 and Senate Bill No. 233.

The question was asked by the Advisory Committee whether the administration would support the transfers of the responsibility of administering this program to the Illinois Public Aid Commission. This information was requested of Mr. George B. McKibben, Director of Finance, State of Illinois. I quote you a telegram just received:

Springfield, Ill.
May 18, 1943, 11 A.M.

"Dr. Charles Phifer
Chairman Medical Advisory Committee
30 North Michigan Ave., Chicago, Ill.
"Planning to make provisions in appropriation bills to take care of the expense of last illness of old age recipients.

(Signed) George B. McKibben
Director of Finance"

Your committee would like to state that in view of the increased cost of operating an office, we wrote to the Division of Public Assistance on May 8, the following letter:

May 8, 1943

"Mr. Wallace W. Clark
Acting Superintendent
Division of Public Assistance
Department of Public Welfare
Springfield, Illinois

Dear Mr. Clark:

"The Advisory Committee on the Medical Care of Public Assistance Recipients of the Department of Public Welfare, State of Illinois, has requested me to write to you and to state the following facts:

"1. They greatly appreciate that the funds for the payment of medical care for the public assistance recipients are very limited.

"2. While one dollar has been the customary fee paid to physicians for office cost on the majority of State programs for medical care of public assistance recipients, they would like to call your attention to the following: The limited number of physicians that are now rendering medical care to civilian population by reason of the emergency; the increased cost of drugs and supplies used in office treatment, as well as office equipment and expense of operating an office may each be factors in causing physicians to refrain from participating in these public assistance programs.

"It is therefore our opinion that the Department of Public Welfare should give serious consideration at this time to increasing the compensation for office calls for medical service to public assistance recipients from one dollar to one dollar and a half.

"We will greatly appreciate your immediate report on this matter so that it may be included in our supplementary report to the House of Delegates at the annual meeting of the Illinois State Medical Society.

"Awaiting your reply and thanking you, I am

Yours sincerely,
Charles H. Phifer (Signed)"

The Division of Public Assistance, at our meeting on May 17, agreed that the price of an office call should be raised from $1.00 to $1.50, effective June 1, 1943.

Respectfully submitted,
CHARLES H. PHIFER,
Chairman
JAMES H. HUTTON
JULIUS H. HESS
EVERETT B. COLEMAN
EDWIN A. HAMILTON,
Ex-Officio
HAROLD M. CAMP,
Ex-Officio

REPORT OF INTER-PROFESSIONAL RELATIONS COMMITTEE

To the Members of the House of Delegates:

During the past year with war efforts over-shadowing everything else, there have been no activities of this committee. No matters have been referred to the committee for consideration and subsequent action. The Interprofessional Council has held no meetings on account of more urgent matters pertaining to the members in relation to conditions resulting from the war.

These increasing demands on the professional groups and the maintaining of teaching and other professional responsibilities, and decreased personnel have made it impossible to pursue this most worthy activity. Your chairman believes it advisable to postpone this work for the duration unless it is possible to find men with the ability, interest and time to give it the attention which it demands.

Respectfully submitted,
HAROLD J. NOYES, M. D., D. D. S.,
Chairman.
PERCY E. HOPKINS,
L. J. HUGHES, M. D.
EDGAR C. COOK, M. D.
WALTER STEVENSON, M. D.

REPORT OF COMMITTEES ON TUBERCULOSIS

To the Members of the House of Delegates:

Since this committee last reported concerning the tuberculosis situation in Illinois, two committees have been appointed by the Governor of Illinois to advise with and work under Dr. E. K. Steinkopff, Chief — Division of Tuberculosis Control. One committee has helped put into operation the outline as submitted to this body at its last session and five of those objectives have been realized. The other committee's duty is to set up a definite state-wide sanatoria outline. One other objective, while promoted, will of necessity have to wait until after the conclusion of the war before realization. Another objective, pertaining to the establishment of sanatoria in more areas over the state needs further consideration before the areas are to be selected.

The points successfully concluded during 1942 are as follows:

I. Punch card file—

This file was set up with the assistance of the Statistical Office and allows for more complete and comprehensive information concerning the cases reported throughout the year and for the proper allocation of these cases by residence so that a clearer picture of the tuberculosis problem in the several areas of the state can be obtained. This file will also allow for improved statistical researches.

II. Sanatorium reports—

Reports are now being received monthly from twenty institutions in the State, outside of Cook County, showing their admissions and discharges and considerable factual information about each of these patients.

III. Certification of sanatoria—

A set of sanatorium standards were set up and approved by the Advisory Committee to this Division and by the Director of the Department, and were put into effect during the last year. Fifteen institutions have been certified to date. It is our intention that these standards be revised annually so that they will not be looked upon as minimum standards and will, therefore, allow for institutions not certified to build up to a level where certification may be given.

IV. Cooperation with Selective Service—

A Downstate Tuberculosis Section of Medical Advisory Board No. 39 was set up with the Chief of the Division of Tuberculosis Control as Chairman of this section. The purpose of the section is to further and assist in the re-examination of the men deferred at the induction centers because of tuberculosis. Through December 31, 1942, 2,638 Selective Service registrants were deferred (outside Cook County) because of tuberculosis. Out of this number 731 had been re-examined by members of Medical Advisory Board No. 39. Out of this group there were found to be 96 active cases and 2 deaths from tuberculosis. Due to limited finances, clerical assistance, and certain other factors, it is impossible to have these men re-examined as rapidly as is desired. However, it is believed that during the coming year the work will proceed more rapidly.

V. Promotion of the Glackin Law—

It is a pleasure to report that in the November 3rd elections twelve counties approved the provisions of the Glackin Law and voted to assess a tax for tuberculosis purposes in their county. One county voting failed to pass this provision. Eleven counties re-voted the Glackin Excess Tax laws, either because the time limit laid down on the original vote had expired or because there was some technicality in the original vote that required re-submission to a vote of the people. Four counties operating under the Glackin Law voted to adopt the Excess Tax provision.

VI. Industrial Surveys—

Through cooperation with the Division of Industrial Hygiene and the United States Public Health Service, we were able to have in the state a photo-fluoroscopic x-ray unit for industrial surveys for tuberculosis. The

unit operated in three counties, Madison, Vermilion, and Sangamon. Approximately 12,168 industrial employees were so examined. It is felt that surveys in industry in these days when industry is making such a large contribution to the war effort are very important. Accordingly, a photo-fluoroscopic unit has been purchased by the Department to do this kind of work. This purchase, however, occurred during this year and will, therefore, be reported in the next annual report.

VII. Education—

A new health educational pamphlet was produced by the Division to replace the one formerly in circulation. The Division participated in the programs of annual meetings of the Illinois Public Health Association, and talks were made to seven local tuberculosis associations and four medical societies. Articles of general interest have appeared in ITAM.

VIII. Sanatorium facilities—

Due to the present emergency situation, it is manifestly impossible to enlarge existing sanatorium facilities or to build new institutions. However, plans have been initiated and are being promoted for one or more state sanatoria in areas needing these facilities. It is hoped that this will become a part of the post-war building program.

IX. X-ray reading service—

The Division has offered its service to local groups for the reading of group survey x-ray films. Duplicate reports are sent, one for the sponsor, and a copy for the family physician named by the patient. During 1942, approximately 160 films were read.

OBJECTIVES FOR 1943 *INCLUDE*:

I. Cooperation with the sanatorium boards, and especially with the new boards created by the November 3rd vote on the Glackin Law, with a view toward developing a more uniform sanatorium board program.

II. Standardization of sanatorium board rules and regulations.

III. Enlarged industrial program.

IV. Improvement of present Selective Service System re-examination program.

V. Sanatorium vacancy reports for benefit of sanatorium boards.

VI. Enlargement of x-ray reading service.

VII. Continuation and annual revision of sanatorium standards.

These objectives may appear to be rather general, but due to the war, it is impossible to set up at this time specific objectives which call for new services or very much in the way of enlargement of present services.

It might be pointed out that selective Service work at the present time takes up about one-third to one-half the time of the Division's clerical force.

The reporting of sanatorium vacancies has been planned for and is expected to go into effect within the next few weeks. It is intended to provide the sanatorium boards not maintaining sanatoria with fairly up to date information regarding sanatorium vacancies so that they may hospitalize their patients as expeditiously as possible.

The industrial program calls for the use of the new 35 mm. photo-fluoroscopic unit in war industries. Its purpose is to help eradicate tuberculosis and to help improve the general health of the workers.

Your committee believes we should give our undivided support to the fine objectives now in operation and should give careful consideration to the selection of any site or district before approving the erection of more sanatoria.

Respectfully submitted,

ROBERT H. HAYES, M. D.,
Chairman
HERMON H. COLE, M. D.,
FRANK J. SMEJKAL
Committee on Tuberculosis.

REPORT OF VENEREAL DISEASE CONTROL COMMITTEE

To the Members of the House of Delegates:

In submitting this report, I wish to acknowledge the splendid cooperation of Dr. Roland R. Cross, Director of the Department of Public Health, Dr. Herman M. Soloway, Chief Director of Veneral Disease Control, and the County Societies, in which new Clinics have been established.

The reports of the daily press and popular magazines, would have the public believe that the increase in the venereal disease incident was alarming, especially among the young groups, and completely out of control, not only in Illinois, but throughout the nation, due to the moral let down and lack of parental control, and ineffective control measures.

A careful analysis of the venereal disease report in Illinois shows that in 1941, there were 23,484 cases of syphilis, and 19,247 cases of gonorrhea treated. In 1942 there were 29,652 cases of syphilis and 20,606 cases of gonorrhea. In the geographical distribution, it is interesting to note, that in down state Illinois there were a total of 2,410 cases of syphilis, who were under treatment by private physicians. There were 2,340 cases treated in the veneral disease clinics. There were also 168 cases of gonorrhea treated by private physicians, 117 cases of gonorrhea treated in venereal disease clinics. There were also 372 cases of syphilis and 223 cases of gonorrhea, who received sufficient treatment to be inducted into service. Both of these groups were under the care of private physicians. At the same time there were 82 cases of syphilis and 433 cases of gonorrhea, which were treated in the venereal disease clinics, and were inducted into service; making a total of 1135 venereal disease cases, which were rehabilitated, and induced into service.

It is also interesting to note that of the 600 cases of primary syphilis reported in Illinois, 300 occurred in the age group of fifteen to twenty-four years; of these 221 occurred in the white, and 79 in the colored. Of the 687 cases of secondary syphilis reported in 1942, 275 occurred in the age group of fifteen to twenty-four years; of which 189 were white and 86 colored.

Complete report as of November 1940 to December 31, 1942, on selectees and volunteers, suspected of having veneral diseases, furnishes a summary of the work accomplished by the Division of Venereal Disease Control.

We are adding to our report a Report on Selectees and Volunteers Suspected of Having Venereal Diseases.

Respectfully submitted,
I. H. NEECE, M. D., *Chairman*
ANDY HALL, M. D.,
JOHN S. NAGEL, M. D.
Committee on Venereal Disease Control.

REPORT ON SELECTEES AND VOLUNTEERS SUSPECTED OF HAVING VENEREAL DISEASE

State of Illinois Complete Report as of November, 1940 to December 31, 1942.

		Private Physicians		Clinics	
		Total	Inducted	Total	Inducted*
		Syphilis		Gonorrhea	
I	No. of selectees and volunteers suspected or known to have venereal disease. Total	20,497		19,244	1,253
	A. All dispositions other than placed or found under treatment	7,029		6,592	437
	1. Examined, not infected		1,565		374
	2. Cannot locate		425		9
	3. Referred to another state		842		23
	4. Other dispositions (specify)			3,760	31
	a. Out of jurisdiction	565		28	
	b. Over 38 years	769		3	
	c. Refuses treatment	162			
	d. Pending investigation	2,081			
	e. In penal and state institutions	73			
	f. Unfit 55, Intensive therapy 29	84			
	g. Died	26			
	B. Placed or found under treatment	13,468		12,652	816
	1. Placed under tr.		10,531		571
	a. Private physician		3,519*		104*
	b. Clinics		7,013*		467*
	2. Already under treatment at time of investigations		2,121		245
	a. Private physicians		660**		144**
	b. Clinics		1,461**		101**
*Down-s-state			Syphilis	Gonorrhea	
	Clinics		1802	78	
	Private physicians		1944	56	
Chicago					
	Private physicians		1525	48	
	Clinics		5210	389	
**Down-state			Syphilis	Gonorrhea	
	Private physicians		416	130	
	Clinics		538	39	
Chicago					
	Private physicians		244	14	
	Clinics		923	62	
II	Total Selectees Placed or found under treatments, 13,468	4,241	372	8,924	82
	A. Referred to another state	75		106	
	B. Died	26			
	Other disposition (Appendix C)	205		724	
	C. Cases with primary, secondary or early latent Syphilis (less 4 years duration)	745		1,675	
	1. Have received less than 20 As & 20 Hm	402		929	
	2. Have received 20 As & 20 Hm but less than 30 As & 40 Hm	106		786	
	3. Have received 30 As & 40 Hm or more	57	49	62	20
	4. Intensive therapy	17			
	5. Amount of treatment unknown	163			480
	D. Other cases of Syphilis (4 or more yrs. duration)	3,179	323	6,200	62
	E. Cases with Gonorrhea	223	223	453	453

*Or in Armed Forces

APPENDIX C

	Private Physicians		Clinics	
	Total	Inducted	Total	Inducted*
2. Discharge—adequately treated	149		362	
3. Lapsed—referred to local board for action	38		87	
4. Died	1		87	
Other Disposition		205		724
1. Out of local jurisdiction	17		65	

REPORT OF PHYSICAL THERAPY COMMITTEE

To the Members of the House of Delegates:

The Committe on Physical Therapy of the Illinois State Medical Society has been unable to accomplish any of its proposed objectives during the past year.

The increased demands upon the time of the committee members has made it impossible to carry on an active program in the interest of physical therapy.

It is our sincere hope that we may be able to indulge in an enthusiastic program in the near future.

Respectfully submitted,
Chairman,
MILTON G. SCHMITT, M. D.,
ANDY HALL, M. D.,
J. S. COULTER, M. D.,
D. H. LEVINTHAL, M. D.,
RUDOLPH MROZ, M. D.,
F. FLINN, M. D.,
Committee on Physical Therpay.

REPORT OF CANCER CONTROL COMMITTEE

To the Members of the House of Delegates:

It is with pleasure that I submit the annual report of the Cancer Committee of the Illinois State Medical Society for the year 1942-43. As during the preceding year your committee has devoted most of its efforts in an advisory capacity consulting with other organiza-

tions that are actively engaged in some phase of cancer work and its status is accepted as the mouthpiece of the State Society so far as cancer work is concerned. Your chairman is pleased to report that the greatest cordiality and harmony has existed at all times between your committee and other cancer organizations.

There has been no change in the general organization of the committee. The Cancer committee of the Chicago Medical Society is working in close affiliation with the state committee and under the chairmanship of Doctor James P. Simonds is doing some extremely constructive work. The Chicago Committee is just completing an extensive survey of the cancer diagnostic and therapeutic facilities in the various hospitals and clinics in Chicago and also a study of the teaching of the subject of cancer in the medical schools in Chicago. The speakers Bureau formed last year has been seriously handicapped due to the entrance of most of the key men into the armed services of the country. It is becoming increasingly more difficult to enlist the services of competent men to speak before audiences especially in the downstate areas.

The Chicago Cancer Committee. Inc. This organization has been extremely active during the past year. As mentioned in the last report of your committee the functions of this organization are to stimulate interest in the cancer problem in the Chicago Metropolitan area, to facilitate an educational program and to coordinate all various cancer activities. The board of directors met each month throughout the year except during mid-summer. There have been appointed committees on a number of projects such as gastric cancer, cancer among the negroes, problems of lay education and the forum committee. The first forum was held on February 16, 1943, at which general problems were introduced. The second, was held on April 27, 1943 at which time some specific facts and data were presented. The attendance has been quite satisfactory and much interest was stimulated among the listeners. The Chicago Cancer Committee, Inc., is working in close co-operation with the cancer committee of the Chicago Medical Society under the chairmanship of Doctor James P. Simonds and with the state committee. Doctor Frederick Merrifield has been placed on the board of Doctors in place of Alexander Ropchan.

Advisory Board to the Division of Cancer Control, Department of Public Health of the State of Illinois. One change has been made in the personnel of the committee during the past year. Doctor D. J. Davis resigned and Doctor James P. Simonds was appointed in his place by Governor Green. There is being maintained constantly a very close and harmonious association between the division of cancer control of the Department of Public Health and the state cancer committee. In all matters pertaining to new projects the opinion of the state cancer committee is consulted.

At present there are four "Tumor Diagnostic Services" operating in the downstate sections. They are located in Springfield, Peoria, Rockford and Champaign. These diagnostic groups are rendering invaluable services to their communities and have the unanimous approval of the local physicians. Aside from the benefits accruing to the patient suffering from cancer they are stimulating interest among the physician and are rapidly becoming an educational project. In summarizing the totals for the four services since their inception, there have been held 127 sessions, 252 new patients examined and 135 tissue examinations. The average physician attendance was 8.4. It may be of interest to note that durng this period 1067 physician visits were recorded, the highest being in Springfield with 544. The Division of Cancer Control of the Department of Public Health does not intend to expand its program during the duration of the war but it does intend to hold to the advancements made so far. It is the intention of the department to complete the book on cancer which is to be supplied to the physicians of the state.

Women's Field Army, American Society for the Control of Cancer. During the past year great advances have been made by this organization under the able and tireless direction of Mrs. Arthur I. Edison. A strong organization is being formed with a number of deputy commanders appointed. The purely educational element has been supplemented by other activities such as the hospital service unit that consists of the voluntary workers and surgical dressings groups. Voluntary workers such as nurses, nurses aids and secretaries are supplied to clinics such as the newly established clinic at the Research Hospital. Surgical dressing units have been established at the Central Y. W. C. A. in the loop of Chicago, Lawn-Manor Community Center and the Woodlawn Community. During the past 3 months these units have supplied the Visiting Nurses' Association with over 2,000 dressings made from salvaged materials contributed by interested friends. These dressings are being used for the care of indigent cancer patients.

During the past year 39 lay meetings were addressed by Mrs. Edison or physicians selected by the speaker's bureau. The combined audience was approximately 7,400. Four radio broadcasts and one television broadcast were given. Also a number of "spot announcements." Five exhibits were on display before conventions. Between January 1942 and January 31, 1943 the film, "Choose to Live" was shown at 38 high schools to 95,000 students. This year proclamations have been issued by President Roosevelt, Governor Green and Mayor Kelly of Chicago urging the citizens to participate in the April Cancer Prevention Activities and drive for membership in the Women's Field Army. Recordings have been made for the use of radio stations during the April campaign.

A cancer prevention clinic for women is to be established in the Women's and Children's Hospital in Chicago under the auspices of the Women's Field Army. This clinic is a counterpart of the "Tumor Diagnostic Services" established down state and approved by the State Society. The newly established diagnostic service is for women only, the services being rendered by women physicians in conformity to

a plan approved by the Chicago Medical Society and supervised by a committee appointed by the Council of the Chicago Medical Society. Diagnostic services are limited to the indigent and low income group, the report of findings to be transmitted to a physician selected by the individual patient.

It is the candid opinion of your committee that even tho the military note prevails there has been a tremendous increase in interest in the cancer problem. Much of this is due to the activities of the Women's Field Army. Your committee again urges the physicians throughout the state to help promote and foster this organization. Social agencies are becoming interested and see the great appeal that cancer control has. Therefore unless organized medicine keeps step with the tempo of the problem other agencies will step in. Cancer control problems rightfully belong to the medical profession and can be carried out best by organized medicine.

Greater strides have been made during the past year than was anticipated by your committee, yet it is only the beginning of an intensive and well co-ordinated program that will have far reaching results. There are great opportunities ahead. Organized medicine must lead the way, provide the impetus, plan the project and carry it through.

The Committee wishes to thank the House of Delegates for its confidence in the work of the committee, the Council for its unstinted assistance and Miss McArthur and the Educational Committee for their harmonious aid. The chairman wishes to express his appreciation personally to the individual members of the committee for their co-operation and unrestricted assistance.

Respectfully submitted,
JOHN A. WOLFER, M. D.,
Chairman.
BOWMAN C. CROWELL, M. D.,
ANDY HALL, M. D.,
ROSWELL T. PETTIT, M. D.,
JAMES P. SIMONDS, M. D.

REPORT OF COMMITTEE ON INDUSTRIAL HEALTH

To the Members of the House of Delegates:

During war, industrial production is considered second in importance only to the actual performance of the armed forces, and the health and efficiency of the great army of factory workers has a pronounced effect on industrial production. Recognizing this, the War Manpower Commission has requested Organized Medicine to embark upon a broad national campaign to safeguard and enhance the welfare of the workers. The Committee on Industrial Health of the Illinois State Medical Society, working under the guidance of the Council on Industrial Health of the American Medical Association, endeavors to correlate its activities with this national plan.

The prevention of ailments, incapacities, and accidents and, having occurred, their cure, have always been the aims of the medical profession. These common objectives, applying in every field of medical endeavor, are likewise the goal of the industrial health and hygiene program in Illinois. There is no essential difference between such a program in war or in peace. The war has simply acted as a catalyst in bringing together all the various forces and agencies concerned in the vital conservation of man-power to the end that the highest possible efficiency of industrial production be attained for the war effort. Let us hope that sufficient momentum will accrue so that the lessons learned, the improvements developed, and the advantages gained in the promulgation of the workers' welfare during the war, will not only be retained but even augmented in the peace to follow. For sound industrial health and hygiene measures not only enhance the welfare of the worker; they are "good business" for industry; and they are good for the community.

In order to attain its objectives, your Committee realizes the necessity of having a functioning committee in each county in order that: (1) information relative to industrial health and hygiene may be disseminated (both to physicians and interested laymen); and (2) information and statistical data may be rapidly gathered (whether on a community, county, or state basis) concerning existing industrial medical services.

The objectives may be summarized as follows:

1. A prevention program, to include periodic plant inspections, sanitary supervision, and safety control.
2. A health program, including periodic examinations, nutrition, fatigue problems, absenteeism studies, morale stimulation, communicable diseases, women in industry, the supervision of executives, health habits, etc.
3. A remedial program — concerning prompt and efficient care of accidental injuries and occupational diseases in industry.
4. A correlation program to coordinate the following: facilities for education in industrial health and hygiene, county committee organization, state industrial hygiene bureaus and local health departments, national agencies, various medical organizations, nurses' organizations, plant management, manufacturers' and trade associations, and labor and employee organizations.

It is always understood that in carrying out the above objectives, there is to be no conflict as to the relationship between the employee and his personal physician. On the contrary, having a common aim, all physicians with whom a worker comes in contact, should develop a mutual understanding and cooperative effort.

The present Committee was appointed in January, 1943, Dr. Philip H. Kreuscher having resigned as Chairman because of a temporary retirement from active practice due to ill health. Fortunately, he consented to remain on the Committee and his active interest and guidance have been a source of great help indeed.

Organization is being extended to the county level, with the formation of Committees on Industrial Health

in county medical societies. It is hoped that in the relatively near future, virtually all counties will have such committees.

For the dissemination of information pertaining to industrial health among physicians, nurses, industrial executives, officials of manufacturers' associations and leaders of labor and employee organizations, conferences on industrial health have been held. These will be continued throughout the year. Such meetings have been held in Peoria, Rockford, Aurora, LaSalle, and many in various sections of Chicago. Members of your Committee and others have met with various lay groups and given talks pertaining to industrial health matters.

On January 13, the Chicago Conference on Industrial Health was held, climaxed by an evening banquet attended by over 500, which was addressed by Governor Dwight H. Green. Through the cooperation of the Council of the Chicago Medical Society in recommending that all Branch Societies hold such meetings, virtually all the branches of the Chicago Medical Society devoted either their April or May meetings to subjects pertaining to industrial health. Sample suggested programs were printed in the Bulletin of the Chicago Medical Society to aid in forming the programs. In many instances the entire programs were arranged by the city and state Committees on Industrial Health. During the annual convention of the Illinois State Medical Society to be held in Chicago in May, an Industrial Health Conference will be held under the joint auspices of the Central States Society of Industrial Medicine and Surgery and the Chicago Society of Industrial Medicine and Surgery.

A questionnaire was mailed to about 300 physicians active in industrial medicine and surgery requesting information concerning their affiliations, the percentage of time spent in industrial practice, whether they needed additional medical personnel, and other related data. A similar questionnaire with special relation to the needs and services in industry was printed in the June Bulletin of the Illinois Manufactures' Association.

Timely material relative to epidemic keratoconjunctivitis was published in both the Illinois Medical Journal and in the Bulletin of the Chicago Medical Society. In addition, 300 special bulletins on this subject were mailed to keep physicians in industry throughout the state.

In the April issue of the Illinois Medical Journal, a "Symposium on Industrial Health" was featured, occupying about 30 pages, and representing the papers presented at the Chicago Conference on Industrial Health. This is the beginning of a "Section on Industrial Health," a new feature of the Illinois Medical Journal. Recent articles submitted by your Committee were papers on 'The Objectives of the Medical Profession in Industrial Health and Hygiene' and 'Absenteeism.' It is hoped that these and forthcoming articles and abstracts will be helpful to county industrial health committees in conjunction with their programs as well as being informative for physicians both in industrial and general practice.

An Outline of First Aid and Minor Treatment for nurses in industry has been prepared and published. It is possible that this may be the basis for a bulletin to be distributed throughout industry by the Illinois State Department of Public Health.

Measures are being promoted toward the end that facilities for graduate and post-graduate training in Industrial Health and Hygiene will be available in one or more of the medical schools in Chicago. This training is of value both for those who wish a "refresher" course and for physicians newly entering the field.

The experience and willingness of Dr. Carl M. Peterson, Chairman of the Council on Industrial Health of the American Medical Association, and of Dr. Milton H. Kronenberg, Chief of the Division of Industrial Hygiene of the Illinois State Department of Public Health, have been most helpful in every phase of the Committee's activities. Your Committee deeply appreciates, also, the help and encouragement manifested by the Officers of the Illinois State Medical Society, the members of the Council and of the House of Delegates, the Editor of the Illinois Medical Journal, the Council and Officers of the Chicago Medical Society and its Branches, and the various County Committees.

Respectfully submitted,
FREDERICK W. SLOBE, M. D.,
Chairman.
PHILIP H. KREUSCHER, M. D.,
FRANK P. HAMMOND, M. D.,
HAROLD A. VONACHEN, M. D.,
ROBERT I. BARICKMAN, M. D.

REPORT OF COMMITTEE ON CRIPPLED CHILDREN'S CLINICS

To the Members of the House of Delegates:

There has been no meeting of this committee due to the absence of the chairman Dr. Frank G. Murphy who joined the Army last fall; and no survey of the various children's clinics was possible.

Respectfully submitted,
*FRANK G. MURPHY, M. D.,
Chairman.
DARWIN B. POND, M. D.,
Member of Committee.
RALPH P. PEAIRS, M. D.

*—In service.

REPORT OF COMMITTEE ON MENTAL HYGIENE

To the Members of the House of Delegates:

Your committee on Mental Hygiene reports: Our greatest aim last year was to have aid provided to local school districts in order that they may revise their curricula to meet the needs of mentally handicapped children. The commission is supposed to include in the teacher-training program of the state normal school both courses on an elementary basis for all teachers and on a specialized basis for persons to

prepare for handling special problems. Also to create a general public understanding of the needs of the educable mentally handicapped children for education and social opportunities. To date the commission has no report of a quantative nature regarding children helped. And, so far as this committee knows, the money appropriated to the commission by the General Assembly in 1941 was used to defray the expense of the commission, not for direct aid to any mentally handicapped children.

To succeed in this work, every member of our society must take an active interest, it is not enough to depend on the various lay organizations as we have in the past.

We also suggest that the red tape involved in getting a child into a hospital be done away with — it is too complicated and takes too much time.

A definite standard should be set for these mentally handicapped children: this will guide the physicians in the treatment or disposal of a case.

Respectfully submitted,
J. C. KRAFFT, M. D.,
Chairman,
A. LEVINSON, M. D.,
B. I. BEVERLY, M. D.

REPORT OF ADVISORY COMMITTEE ON CIVILIAN PHYSICAL FITNESS

To the Members of the House of Delegates:

In compliance with instructions from the House of Delegates, your Advisory Committee on Civilian Physical Fitness organized and met in the offices of the Illinois State Medical Society, 30 North Michigan Ave., Chicago, on March 18, 1943, at 4:30 P. M. Present at that meeting were the following members:

1. Dr. J. H. Beard, University of Illinois.
2. Dr. Marie Ortmayer,
3. Dr. E. E. Madden,
4. Dr. S. I. Lang,
5. Dr. Arthur H. Steinhaus, George Williams College,
6. Dr. Robert S. Berghoff, Chairman.

At that meeting plans were formulated and drawn up to cover the entire broad field of Civilian Physical Fitness. This included a routine set-up of exercises to be used in training university students, and a medical examination form to be followed in the examination of all applicants prior to their enrollment in the various classes of Civilian Physical Fitness. Within the last two months a brochure has been published containing a detailed description (illustrated) of the types of exercises being given to the various groups.

This work is growing rapidly and satisfatorily, and no second meeting of the Committee was considered necessary.

Respectfully submitted,
ROBERT S. BERGHOFF, M. D.,
Chairman.
J. H. BEARD, M. D.,
MARIE ORTMAYER, M. D.,
E. E. MADDEN, M. D.,
S. I. LANG, M. D.,
ARTHUR H. STEINHAUS, M. D.

REPORT OF GENERAL CHAIRMAN ON ARRANGEMENTS

To the Members of the House of Delegates:

Members of the Illinois State Medical Society, Ladies and Gentlemen:

Welcome to the One Hundred Third Annual Session of the Illinois State Medical Society! Welcome particularly to the first war meeting of this Society. The world today has no place and no time for sissies. It calls for strong men and brave women. At first glance it seemed to many, that postponment of our Annual Meetings until after the war, or at least abridgement to simply a call of the House of Delegates might be more prudent or cautious. And yet here we are in General Session for the 103rd time without interruption. And today in one breath, Welcome and Congratulations!

Congratulations to the Council for their courage and vision, and congratulations to you all for your effort and personal sacrifice in coming here. You will find this your 103rd a different sort — very interesting, I hope, sort of meeting with a decided military atmosphere, not only because of the uniforms of army, navy, marines and air force officers thronging the hotel and meeting rooms, but the program itself is charged with war.

You have before you a diagram showing the location of the various meeting rooms and programs. If I or any of my committees can be of any personal service to you, feel free to call on us.

I want to assure you of my appreciation of your confidence in appointing me your general chairman and I want to say that my work which might have been formidable was relatively simple due to the whole-hearted effort and cooperation of all my committee chairmen. I thank them and you most heartily.

ROBERT S. BERGHOFF,
Chairman.

REPORT OF THE COMMITTEE ON MEDICINE AND THE WAR

DR. E. S. HAMILTON: I have to report for a Committee that most of you know nothing about. This was a new committee that was appointed during the year at the request of the American Medical Association and of the Procurement and Assignment Directing Board. We want to make a very brief report.

Last year the American Medical Association, at the request of the House of Delegates, appointed a War Participation Committee to act in an advisory capacity in the many considerations of medicine in the war effort. Following the meeting of the A.M.A., each state society

was urged to select a similar committee to work along the same lines within the individual states.

The Illinois Committee was appointed after a conference with Colonel Harold Leuth, Liaison Officers from the U. S. Army to the American Medical Association, and after discussing the proposal with officers of this Society and members of the Council.

The advisory functions of this committee as outlined by the 1942 House of Delegates of the American Medical Association are as follows:

"The proposed Committee on War Participation should keep in close touch with all policies affecting the quality and efficiency of medical service both to the armed forces and to the civilian population.

"It should feel free to express comments and criticism of policies relating to the participation of the medical profession in the war effort.

"Without authority to act, only to advise, it becomes a committee to express the views of the medical profession on such proposals as are made which may have a direct bearing on the principles which the American Medical Association regards as fundamental in the provision of good medical care."

The War Participation Committee is desirous of filling whatever capacities this House of Delegates believes advisable, and it is the desire of the Committee to comply with the functions as recommended for the A.M.A. Committee as are enumerated above. The Committee has met to consider several important problems in connection with the war effort, and especially in regard to Illinois physicians in the Armed Forces. It is the belief of the Committee that everything should be done which is humanly possible to aid in the filling of the Illinois quota, and yet cause the least possible hardship on the civilian population, and with the least possible disturbance of the medical personnel in essential war plants throughout the state. On the other hand, we would discourage the employment by industry of physicians within the draft age who may be subject to a call from Selective Service in the near future.

The Committee believes that most industrial positions when additional medical personnel is desired, can be filled with older men, or with those who have been disqualified for military service. We likewise believe that the State Society Committee on Industrial Health, composed of men who are familiar with the problems of industry in connection with the health of workers, can be of much assistance in all considerations pertaining to this particular problem. We propose to confer with the Industrial Health Committee when problems of this nature are referred to us. It is the intention of our Committee to cooperate in every way possible with the Procurement and Assignment Service at the State level, and it is our firm belief that joint conferences to consider unusual or controversial problems pertaining to the clearance of physicians for the Armed Forces will be mutually beneficial.

A report to this House of Delegates from the War Participation Committee was not incorporated in the Handbook, hence the necessity of giving a short and informative report to the House which we hope will be referred to a committee for study and consideration of the functions which the committee believes should be assumed.

This is a state society committee, while the Procurement and Assignment Service receives its orders from Washington, being included in the War Manpower Commission. Although this Committee is without authority to act, it should feel free to express comments, opinions and criticism of policies affecting the quality and efficiency of medical service, as has been stated by the American Medical Association House of Delegates.

Respectfully submitted,
G. HENRY MUNDT
RALPH A. KORDENAT
EDWARD H. WELD
GEORGE W. POST
HAROLD M. CAMP
EDWIN S. HAMILTON,
Chairman

REPORT OF THE EDITOR

To the Members of the House of Delegates:

It is needless to say that the past year has seen many changes in the Illinois Medical Journal, as it has been the desire of those responsible for its publication to cooperate in every way possible with the war movement. We have received hundreds of releases which have either been published in full or in abstract, in accordance with the desire of many of the Government agencies.

Although there are many foreign countries where many copies of the Journal were formerly sent each month that have been removed from the subscription and exchange lists, more copies have been published during the past year than ever before in its history. At this time approximately 9,500 copies are printed each month, and none are wasted. An earnest endeavor has been made to send to the members of this Society, their copy of the Journal regardless of their location, and if it has failed to reach them, it is through no fault of those responsible for its mailing each month.

The past year has been the best in the history of the Journal from the standpoint of financial returns. More advertisements have been published, and it is interesting to note that the March, 1943 issue contained more advertisements than any previous copy. Earnest efforts have been made to limit the advertising contracts to those which meet the high standards which have been set up by the Journal Committee. Many prospective advertisers have been denied the privilege of the advertising columns.

Regular reports have been made to the Council of Journal affairs at each regular session, and as the Council is responsible under the by-laws of this Society for the publication of the Journal, the decision of the Council in any matter pertaining to policy, has been final. Efforts have been made constantly to improve both the appearance and the contents of the Journal and suggestions have been solicited constantly for improvements along this line.

The Editorial Board has assumed much responsibility in determining many policies, and a great many papers submitted for publication have been referred to the members individually and collectively, at the meetings of the Board, and all have been critically evaluated and those seemingly most appropriate at the moment have been accepted for publication. With the ever increasing requests for cooperation in the war effort, attempts have been made to give first consideration to papers on subjects of greater interest at this time.

A considerable amount of space has been made available for the Medicine's Role in the War Effort department, and it has been the policy to publish these articles which in the opinion of the editor and those to whom the articles have been referred, will interest the average reader and give pertinent information. Many of these articles are Government Releases submitted for publication. Efforts have been made to publish articles pertaining to Illinois physicians in service, and we urgently request that any articles relative to members of this Society who are in service be submitted to the editor, and they shall be given careful attention.

During the past year the subjects pertaining to the considerations of industrial health have been increasingly important, and at the suggestion of the Committee on Industrial Health, and with the consent of the Council, a special department is now published carrying important announcements, short papers and abstracts on this subject, as arranged by the Committee.

The April Journal was literally an industrial health number, and a symposium of seven papers was published, these having been presented at the Chicago Conference on Health of Industrial Workers held at the Palmer House last January.

The Journal Committee under the chairmanship of Percy E. Hopkins has devoted a considerable amount of time in the consideration of many problems in regard to Journal affairs, and he has attended regularly, the meetings of the Editorial Board of which James H. Hutton is Chairman.

To the thousands of members of the Illinois State Medical Society we desire to state that the Journal is always desirous of receiving your papers, but at this time greater interest is for papers which are timely and will give information to the average reader. In line with most publications of today, bibliographies should be entirely eliminated, or reduced to a minimum. Complete bibliographies may be published in author's reprints according to his individual desire, but lengthy references of this type consume a considerable amount of space which is needed for other purposes.

Likewise the average paper should be short, and eliminate historical data and differences of opinion on controversial subjects. The author of a medical book recently told the editor that in preparing his copy he originally had enough material for approximately 800 pages. Realizing the necessity of getting the most material in the fewest pages, he decided to rewrite his copy, and found that he could reduce the number of pages fifty percent without detracting from the value of the book. Although the book was being published according to the revised number of pages, he said he was not entirely satisfied, and thoroughly believed it could have been reduced at least another 50 pages which would have increased the interest on the part of the prospective readers.

During the past year, it has been the policy of the Illinois Medical Journal to submit all data concerning prospective advertising, to the American Medical Association and be largely guided by their recommendations. This has applied to all new advertisers, and we firmly believe that the Journal has been definitely improved through this procedure.

With an ever increasing number of physicians remaining in the field for civilian practice, an increasing number have become interested in many phases of medicine and surgery which were formerly left to the specialists. This applies particularly to such subjects as the treatment of burns, treatment of soft tissue injuries, care of fractures, recognition and treatment of shock, the many uses of the sulfa drugs, and other similar subjects. In the rural areas, industrial, mining and oil producing sections of the state, many physicians today more than ever before must have this information available constantly.

With a marked reduction in farm workers, and with older machinery which is difficult to replace and

often to keep in good repair, there will most likely be an increase in farm accidents, and it is the rural practitioner, in most instances elderly men, who will assume many additional responsibilities in providing the proper type of treatment for these casualties.

The Illinois Medical Journal during the past year has published more articles than ever before in a similar period, on these most timely subjects. Likewise there have been published many abstracts of articles appearing in the Journal of the American Medical Association which in the opinion of your Editor, are of particular interest to the readers.

Your Editor urges all county medical societies in this state to send in brief announcements of your meetings. Likewise we solicit information relative to coming meetings, which we desire to publish regularly. Then information for the News of the State department is always welcome, and should be sent in regularly.

Occasionally word is received of the death of some member many months after he has passed away. We urge that information concerning Illinois physicians be referred promptly, so that announcements will appear in an early issue of the Journal. With 92 component societies throughout the state, this section of the Journal dealing with "Personals" should be enlarged, and we hope that each reader will keep this in mind.

During the past year it has been the policy of your editor to spend approximately two days each week in the Chicago office, where all business matters pertaining to the Journal are carried on. Conferences with the Business Manager, L. E. Malley are held regularly and we believe for the best interests of the Journal. Likewise more frequent conferences with the Chairman of the Journal Committee and Editorial Board are possible under this arrangement.

SUMMARY

It is the desire of those responsible for the publication of the Illinois Medical Journal to cooperate with the Government in every way possible in all considerations pertaining to medicine and the war effort.

Realizing that some subjects are of greater interest to the average reader than others, attempts have been made to select papers for publication more carefully than in the past.

The Illinois Medical Journal is the official organ of the Illinois State Medical Society, published as a responsibility of the Council and under the supervision of a Journal Committee, and its policies considered to a great extent by a capable Editorial Board. All of those responsible for its appearance each month are desirous of producing the best Journal possible at this time.

The assistance of all county medical societies and members individually is hereby requested. Information concerning society activities, individual members and those now in service will be of interest to the many readers of the Journal.

In closing this report, your editor again desires to thank the Journal Committee, Editorial Board, and the Business Manager for the valuable assistance and cooperation during another year.

Respectfully submitted,
HAROLD M. CAMP, M.D.,
Editor.

REPORT OF THE WOMAN'S AUXILIARY

To the Members of the House of Delegates:

As President of the Woman's Auxiliary to the Illinois State Medical Society, I wish to submit the following report:

1. *Board Meetings*—Four were held during the year, including Post-Convention and Pre-Convention.

2. *Organization and Membership*—There are twenty (20) Counties organized of the ninety-two (92) Medical Societies organized in 102 counties in Illinois. We have 936 members as of March 1, 1943.

3. *Benevolence Fund*—All Auxiliaries have been asked to contribute to this fund, contributions payable with dues March 1st. Our records as of March 1st show $866.00 paid. This lower figure is due to some Auxiliaries carrying membership dues of members whose husbands are in service, but Benevolence contribution is waived.

4. *Public Relations*—Programs have been given and the usual invitation extended to all club groups. Our members are alert at all times regarding health topics that might be brought up from time to time in other organizations.

5. *Legislation*—The Auxiliary stands ready to serve when ever called upon to do so, and members will give generously of their time.

6. *Hygeia*—This year our figure of 800 subscriptions may seem low, but we must consider the absent ones. However, our project of furnishing "Hygeia" subscriptions has been a great help in nutritional programs and health education programs for our schools, institutions, libraries, U. S. O. Lounges, and camps throughout the State. Illinois had one prize winner this year, Vermilion county, Danville, Illinois. This prize money, is ued for additional "Hygeia" subscriptions in schools, and is welcome.

7. *Press and Publicity*—We have urged all counties to forward news items for the Auxiliary page in the Journal throughout the year, and to date we have made the page monthly. We are indeed grateful to our editor for this contribution of space.

8. *Our members* have cooperated in the following war activities: Red Cross, Blood Banks, First Aid classes, teaching of First Aid, Motor Corps, Books for Camps; entertained boys at camps; sewing kits donated; Stamp and Bond drives; and Vermilion county sponsored two scholarships for student nurses.

9. *As President,* I have attended regular meetings of my branch in Cook county and visited the following counties: Bureau, Cook, Henry, Kane, Madison, Marion, Clinton, Sangamon, St. Clair, and four branches in Cook county—Aux Plaines, Calumet, Englewood, Jackson Park and South Chicago. I have attended

the National Convention and all Board meetings. Mrs. Haggard, President of the Woman's Auxiliary to the American Medical Association, was our guest at the November State Board meeting.

As an extra activity I am compiling a list of our members who are with their husbands at base hospitals, and have written each State Auxiliary President asking them to extend an invitation and a welcome to the Auxiliary members from Illinois. (Not a transfer).

The past few weeks have been given entirely to our Convention plans, meeting with Dr. Berghoff and Mrs. Stigman.

On behalf of the Woman's Auxiliary to the Illinois State Medical Society I wish to take this opportunity to thank you for the cooperation which we have received, and to thank the Advisory Committee for its advice and guidance when called upon.

Respectfully submitted,
HILDA B. WANNINGER,
President Woman's Auxiliary.

To the Members of the House of Delegates:
Gentlemen:

I ask your consideration of the following recommendation:

Inasmuch as the Illinois State Medical Society has waived the dues of members in the service, the same reimbursement should be extended to the Woman's Auxiliary for members whose husbands are in service.

The struggle will certainly be long and hard, and will require extraordinary efforts and the unity of all of us, so let us as doctors and wives work together. At present some counties have paid their dues this year. One county said "no." Cook county is carrying 125 wives of men in service, but contributions to Benevolence Fund payable with the annual dues, is waived for the duration on these carried members.

We cannot give social functions for raising funds other than for war purposes.

Thank you, gentlemen, for this opportunity, and I trust this distinguished body will remember the Woman's Auxiliary.

HILDA B. WANNINGER,
President Woman's Auxiliary.

THE PRESIDENT: We now come to unfinished business. There is none on the agenda, so we will pass to new business, the first item of which is the introduction of resolutions and their reference to the Resolutions Committee. Will the Chairman of the Resolution Committee come forward to receive the resolutions as they are presented.

DR. EDMOND BECHTOLD, Belleville: I wish to present the following resolution from the St. Clair County Medical Society. It was adopted at their last regular meeting and the delegates instructed to present it to the House of Delegates of the Illinois State Medical Society. This resolution was presented by the National Conference of Medical Service.

1. *THE DEVELOPMENT OF A STRONGER NATIONAL ECONOMIC AND LEGISLATIVE POLICY GOVERNING THE PRACTICE OF MEDICINE*

Whereas, social and economic changes have altered the lives of our citizens and the Federal Government has found it necessary to issue directives from time to time, we as physicians believe that it is our duty to take a more active part in the creation of such regulations as affect the practice of medicine; therefore,

Be it resolved, that the Illinois State Medical Society go on record as favoring immediate development of a stronger national economic and legislative policy governing the practice of medicine and that such a policy be integrated with each state and county, and be it further

Resolved, that the expression of this National Conference on Medical Service be submitted to the Board of Trustees of the American Medical Association, advising them that this resolution or a similar one, will be submitted to the delegates of the American Medical Association at their next annual meeting.

DR. W. M. LARSON, Stockton: I wish to present the following resolution which was passed in regular session of the Jo Daviess County Medical Society, assembled in Galena, Illinois, May 14, 1943.

2. *ENDORSEMENT OF SENATE BILL* 233 *AND HOUSE BILL* 241 *KNOWN AS THE LUCKEY-EDWARDS BILL*

Whereas, the present plan of payment to the physician and surgeon for service rendered to old age assistance recipients, and aid to the dependent children by the Department of Public Welfare of the State of Illinois is unsatisfactory, not only in the amount of money paid for services rendered, but that the clerical work involved in each case is excessive, and that the disclosure of the diagnosis and treatment is unethical and illegal, and that in cases of last illness the Doctor is left "holding an empty bag";

We, the Jo Daviess County Medical Society, component part of the Illinois State Medical Society, in regular assembled meeting do hereby pass the following resolution:

Therefore be it resolved, that the Illinois State Medical Society endorse and approve and use every means in its power to further the passage of Senate Bill 233 and House Bill 241 known as the Luckey-Edwards Bill, sponsored by the Vermillion County Medical Society, which will place the responsibility back in the hands of the supervisor of the poor in each county where it legally belongs and thereby permitting each county society to work out a plan just and agreeable to its individual needs, the fees to be determined by the local county medical society and the supervisor of the poor.

DR. F. P. HAMMOND, Chicago: I have two resolutions from the Woman's Auxiliary.

3. *PAYMENT BY THE ILLINOIS STATE MEDICAL SOCIETY OF ANNUAL STATE AUXILIARY DUES FOR EACH MEMBER-WIFE OF PHYSICIANS IN SERVICE*

Whereas, it has been customary for medical societies to waive the annual dues for members serving in the Government Armed Forces; and,

Whereas, members of the Woman's Auxiliary, wives of these same men serving the Government, should receive the same courtesy by the Illinois State Medical Auxiliary; and,

Whereas, to do so would more or less disrupt and embarrass the Auxiliary treasury for the reason that it is necessary for each County Auxiliary to pay *per capita* dues to the State Auxiliary and also to the National Auxiliary; and,

Whereas, it is quite impossible to carry on the essential activities of the State Auxiliary without the annual dues from all members, including wives of doctors in Service; therefore,

Be it resolved, that the Illinois State Medical Society make provision to pay from its Treasury the annual State Auxiliary dues of one dollar for each member-wife of physicians in Service only during the period their doctor-husbands are serving in the Armed Forces.

4. *CAMPAIGN FOR HYGEIA.*

Whereas, the War Production Board advises that sick and injured war production workers lose 6,000 workdays each month, and,

Whereas, Donald Nelson, Chairman of the War Production Board, and Paul V. McKnutt, Chairman of the War Manpower Commission, and others are urging that every state and community make it their job to take an active part in saving as many of those lost days as possible for the Production Drive in keeping the nation's workers on the job and physically fit; and,

Whereas, the National Research Council is asking the general public to focus its attention on proper food and nutrition for better health defense; and,

Whereas, there is an urgent need for authentic health information and first aid training in home and factory and among the men in Army camps and Naval stations, and by Red Cross workers, block captains, and civilian defense authorities; and,

Whereas, thousands of physicians have already left civilian practice to enter the armed forces, and by the end of this year more than 35 per cent of the active medical profession will be out of general practice; and,

Whereas, the increased public demand for health information cannot be met alone by the heavily worked physicians who remain in private practice; and,

Whereas, it remains the responsibility of the medical profession to do its utmost in disseminating to the laity health information and sound advice; and,

Whereas, in 1921 at the Boston session of the American Medical Association, the House of Delegates authorized the publication of *Hygeia,* The Health Magazine, which was designed to give sound health information in non-technical language, to interpret the progress in scientific and preventive medicine, and to discourage the reliance on quacks and the use of patent medicines; and,

Whereas, there is no other national magazine in the field of health that offers the large amount of authentic health information in lay language; and,

Whereas, this magazine, under careful scrutiny of the American Medical Association, maintains high professional standards of accuracy in its editorial and advertising policy; therefore,

Be it resolved, that the House of Delegates of the Illinois State Medical Society, in recognition of the great public need for reliable health information and in recognition of the service that *Hygeia,* The Health Magazine, can perform in terms of industrial, civilian and community health, hereby endorse this magazine, and to this end recommend that officers and members of the

county medical societies of the Illinois State Medical Society urge wider recognition of *Hygeia* in their communities, and be it further

Resolved, that copies of this resolution be sent to the Editor of *Hygeia* at the headquarters of the American Medical Association in Chicago, and to the Secretary of each component county medical society of the Illinois State Medical Society, with the request that this resolution be read at the next stated meeting and similar action taken to cooperate in this health education campaign by widening the distribution of *Hygeia,* The Health Magazine.

DR. ANDY HALL, Mt. Vernon: I wish to introduce the following resolution.

5. *CITIZENSHIP A REQUISITE FOR LICENSE TO PRACTICE MEDICINE IN THE STATE OF ILLINOIS*

Whereas, practically all the young physicians in Illinois, who were found physically fit, have volunteered their service and are now serving with the armed forces of the United States, and,

Whereas, these physicians have sacrificed their business, severed their family ties and have offered their lives if need be on the altar of their country to win the war, therefore,

Be it resolved, that we commend and deeply appreciate their courage, loyalty and patriotism, and pledge ourselves to look after their civilian patrons in their absence and when this war is over and they return to their homes, that we will, as far as possible, return to them their old patrons and any other business they have entrusted to our care, and,

Be it further resolved, that we will use our influence with the members of the Illinois Legislature and the Department of Registration and Education to enact laws and promulgate rules in keeping with those of surrounding states that will make citizenship requisite for license to practice medicine in the State of Illinois, and,

Be it further resolved, that in our opinion, unless the Citizenship Bills, introduced and overwhelmingly passed by the last Legislature and vetoed by Governor Green, are reintroduced and become laws of the State, Illinois will be flooded with refugee physicians from foreign countries and our young physicians who are now with the armed forces will find much of their business gone forever when they are mustered out of the Service.

DR. KARL B. RIEGER, Freeport: I wish to present the following resolution.

6. *ENDORSEMENT OF SENATE BILL 233 AND HOUSE BILL 241*

The Stevenson County Medical Society assembled in regular monthly meeting, May 6, 1943, has placed on record its objections to the methods of the Welfare Department of the State of Illinois, in handling medical, surgical and hospital cases of recipients of Old Age Assistance and recipients under the Aid to Dependent Children Act. We enumerate the following objections:

1. The Illinois Act of Aid to Dependent Children and Old Age Assistance places the responsibility on the governing body of the particular governmental unit in each county or township. Therefore, the Welfare Department of the State is outside its legal bound in administering this care.

2. The present plan is not in accord with the higher cost of living and the fees of the present plan are inadequate and unjust.

3. The clerical work of filling out records as prescribed by the Department of Public Welfare is burdensome, time taking and unnecessary to competent records.

4. The disclosure of diagnosis and treatment is unethical, unjust and illegal. This is privileged communication between physician and patient.

5. The continuance of cooperation with the Department of Public Welfare and their overlording of our treatment, fees, diagnosis and the private details of our relations with patients is a step closer to socialized and state controlled medicine.

We, the members of the Stevenson County Medical Society, offer the following resolution:

Resolved, that the Illinois State Medical Society approve and endorse Senate Bill 233 and House Bill 241, known as the Lucky-Edwards Bill, and further that the Illinois State Medical Society use every means within its power to have said bills passed.

These bills are sponsored and endorsed by the Vermilion County Medical Society and the legislative committee of the Illinois State Medical Society.

The passage of these bills will place the responsibility of payment of Old Age Assistance

and Aid to Dependent Children in the hands of the local governmental unit in each county or township.

This will permit each county or township to work out its own individual needs, as we know they differ greatly in various parts of the state.

This will guarantee payment of bills for last illness which now are left unpaid.

DR. ROBERT H. HAYES, Chicago: I wish to present a resolution which has to do with changes in the Pure Food and Drug Law. We are all aware of the fact that any layman can go into a drugstore and buy codeine or barbiturates without a prescription. If you have a prescription containing these drugs it cannot be refilled. That is one of the inequalities which this bill will correct.

7. *ENDORSEMENT OF HOUSE BILL 437 PERTAINING TO ADEQUATE LEGISLATION RELATIVE TO PURE FOODS, DRUGS AND COSMETICS.*

Whereas, there has been a Bill (No. 437) introduced into the House of Representatives of the State of Illinois, by State Representative Noble Lee, pertaining to adequate legislation relative to pure foods, drugs and cosmetics; and,

Whereas, this Bill by becoming a law in and by the State of Illinois, that will make for uniformity with the Federal Act and the Pure Foods and Drugs Act of neighboring states; and,

Whereas, this Bill renders a material service to the medical profession of the State of Illinois; therefore be it.

Resolved, that the Illinois State Medical Society here assembled indicate its endorsement of the bill for passage by the Legislative Branches of the State of Illinois.

DR. A. H. BITTER, Quincy: I wish to present the following resolution.

8. *INCREASE IN FEES TO PHYSICIANS FOR SERVICES RENDERED RECIPIENTS OF THE OLD AGE ASSISTANCE PROGRAM*

By unanimous action, the Adams County Medical Society has instructed its delegates to introduce the following resolution at the annual meeting of the House of Delegates of the Illinois State Medical Society:

Whereas, the present upward trend in living costs has increased the overhead in connection with the practice of medicine,

Be it resolved, that the Adams County Medical Society do request that appropriate means be devised to secure an increase of 33⅓ per cent in the fees paid to the profession for services rendered to recipients of the Old Age Assistance program and that proper officers or committees be instructed to use all honorable means to secure such increases.

THE SECRETARY: I have two resolutions submitted to me by Dr. N. S. Davis III.

9. *OFFICERS, TRUSTEES OR FACULTY MEMBERS OF SCHOOLS WHICH DO NOT SATISFY THE "ESSENTIALS OF AN ACCEPTABLE MEDICAL SCHOOL" OF THE AMERICAN MEDICAL ASSOCIATION.*

Resolved, (1) that service as an officer, trustee or faculty member of any medical school in the State of Illinois which has been in existence for five years or more and which does not satisfy the "Essentials of an Acceptable Medical School" of the American Medical Association, constitute failure to exalt the standards of the medical profession; failure to "promote the science and art of medicine and the betterment of public health"; and failure to elevate the standards of medical education.

(2) That such service violates Section I, Article 1,

Chapter III of the Principles of Medical Ethics and Article II of the Constitution of the American Medical Association, and Article II of the constitution of the Illinois State Medical Society.

(3) That, in the name of the Illinois State Medical Society, its Secretary is instructed to notify component county societies that all members of the Society who on May 20, 1943 are serving or who may thereafter serve as trustees, officers or faculty members of any medical school which has been in existence for at least five years and which at the end of that period has not satisfied the "Essentials of an Acceptable Medical School" of the American Medical Association, that by so serving they are violating Section 1, Article 1, Chapter III of the Principles of Medical Ethics and Article II of the Constitution of the American Medical Association, and Article II of the Constitution of the

Illinois State Medical Society and requesting that the County Society take appropriate action against such members.

10. *PUBLICATION OF MINUTES OF COUNCIL MEETINGS*

Resolved (1) that the complete minutes of every meeting of the Council of the Illinois State Medical Society be sent to all members of the House of Delegates and to their alternates.

(2) That an abstract of the minutes of every meeting of the Council of the Illinois State Medical Society, including all motions, orders, resolutions and committee reports acted upon by said Council and the action taken, shall be published in the number of the Illinois Medical Journal for the month next following that in which the meeting or meetings were held.

THE PRESIDENT: Additional resolutions may be presented to the Resolutions Committee this evening or tomorrow, and will be acted upon by the House of Delegates on Thursday morning. Is there other new business?

DR. E. P. COLEMAN, Canton: I understand Dr. Philip H. Kreuscher is very seriously ill. I think it would be well to send him a message of good will and flowers while he is still alive, and I so move.

DR. OSCAR HAWKINSON, Chicago: I second the motion and add that the same be done for Dr. John R. Ballinger who is also seriously ill.

(Motion carried).

THE PRESIDENT: May I introduce to you your President-Elect, Dr. George W. Post, Chicago.

If there is no other business, I will entertain a motion for adjournment.

DR. E. P. COLEMAN, Canton: I move we adjourn.

(Motion seconded by Dr. C. E. Wilkinson, Danville, and carried).

The House adjourned at 5:18 P.M.

NOTE: The minutes of the second session of the House of Delegates will appear in the August issue of The Journal.

Industrial Health

Committee On Industrial Health — Frederick W. Slobe, Chm., 2024 South Western Ave., Chicago, Frank P. Hammond, H. A. Vonachen, R. I. Barickman.

EPIDEMIC KERATO-CONJUNCTIVITIS

TO — THE ILLINOIS MEDICAL PROFESSION.
SUBJECT — EPIDEMIC KERATO-CONJUNCTIVITIS

DATE — June 14th, 1943.

We have been told by Dr. Murray Sanders, who spoke at the Illinois State Medical Society Convention here two weeks ago and who has done a great deal of work in epidemic kerato-conjunctivitis that the disease is getting progressively worse as it extends westward and in many cases is even producing symptoms of encephalitis including neck and back rigidity. This increase in the severity of the disease is confirmed by industrial ophthalmologists who see most of the cases of the disease occurring in this area.

We wish to inform the physicians to be on the lookout for any abnormal prolonged reddening conditions of the eyes, knowing that mild cases of the disease are just as contagious as severe cases and should be isolated away from other individuals in industry. We also know that this period of hot weather is more favorable for the spread of this disease. We urgently urge that all suspected cases of epidemic kerato-conjunctivitis be placed under immediate medical treatment preferably under the care of a trained eye-ear-nose and throat specialist who has had experience with this disease. Please report all your cases at once to the health department, as this disease is now reportable.

We know that the disease can be curtailed by early diagnosis and early isolation and we sincerely hope that you will help us to prevent a widespread epidemic of this disease which produces many lost days of labor during this time of national defense when manpower is urgently needed.

Roland R. Cross, M.D.,
Director,
Illinois Dept. of Public Health

E. A. Piszczek, M.D., M.P.H., Secretary,
Sub-committee on Epidemic Kerato-Conjunctivitis
of the joint committee on Industrial Ophthalmology
of the American Medical Association and the American Academy of Ophthalmology and Oto-laryngology.

F. W. Slobe, M.D., Chairman,
Committee on Industrial Health
Illinois State and Chicago Medical Societies.

Milton H. Kronenberg, M.D., Chief
Division of Industrial Hygiene
Illinois Department of Public Health

"WHAT'S NEW"

The Department of Public Health, Dr. Roland R. Cross, Director, through its Division of Industrial Hygiene, of which Dr. Milton H. Kronenberg is Chief, has issued two informative booklets containing valuable data on medical, nursing, and engineering subjects. Our section this month is devoted to excerpts from Volume 1, Number 1 of "What's New in Industrial Hygiene" issued by the Department of Public Health.

WOMEN IN INDUSTRY

It is an accepted fact, today, that women in large numbers must be employed on the production line if our gigantic war effort is to produce the results required for victory. To some the thought of women in industry may bring thoughts of inefficiency, waste, accidents and a

host of other erroneous conceptions of the value of women in industrial production. That women can effectively replace men in industry is being demonstrated daily in many plants. Their productive employment depends upon planning and it behooves industry to start such planning before the need for women arises. This will prevent needless waste, illness, accidents, production upsets, as well as social problems. Attention to several fundamental factors will guide management in their effective employment of women. These measures are not very different than those required for the efficient employment of men. Poor working conditions have no sex differential, for if the environment adversely effects health, it effects both males and females alike. There are certain jobs unsuitable for women, but this is due to certain limitations of physique and other biological differences.

The defense program calling for speed, quality and quantity of production can be attained and maintained over an extended period of time only when working conditions leading to fatigue, discomfort, ill-health or accident are eliminated insofar as practicable. It is the intent of this article to enumerate and briefly discuss the measures for the elimination of the above detrimental factors.

Suitable Jobs: With the exception of jobs requiring heavy lifting and great physical strength, women can be employed on most any job. They have certain peculiar qualifications for painstaking, tedious and repetitive work requiring great patience and for finger dexterity. In such jobs they exceed the production of men. While women lack experience, they do not lack mechanical ability. Such lack of experience simply necessitates training for the job.

Physique Limitations: Jobs should be tailored to meet the physical limitations of women. Many heavy jobs can be broken down into intermediate jobs so that women can be used. Women are generally shorter in stature which means that bench heights may have to be lowered. If high stools are to be used to compensate for bench height, foot boards should be provided to prevent the edges of the chair from pressing behind the knees. Women's reach is shorter, which limits her stretching to reach levers, racks, etc.; her hands are smaller thus limiting the size and weight of hand tools.

It has been recognized, since women first worked, that they should not be allowed to lift heavy loads or do work requiring great physical exertion if they are to be efficiently employed. While in England it has been reported that women are allowed to lift one-third their weight, it is felt that this is too great. Some employers of large numbers of women have set 30-40 pounds as the maximum. However, it is felt that a standard is difficult to set for there are many factors upon which the safe lifting load depends. For example, it is necessary to know how sustained the lifting effort is, the height of the lift, the degree of the body turning necessary during the action, and the weight of the worker. It would be safer to limit the lifting of women to 15 pounds except where the plant physician has deemed it safe.

Safety: Women can work as safely as men with proper training and effective machine guards. However, since women's hands are smaller, machine guards should be set closer and substandard guards should be eliminated. It has been reported that power machines cause two-thirds of women's permanent partial injuries and that the punch press is responsible for half the machinery accidents. Therefore, a vigilant machine guarding program should be instituted. It must be remembered that the reaction after an accident will be much greater among women.

Safe work clothing is of utmost importance for the safe employment of women. Earrings, necklaces, bracelets, wrist watches and loose fitting dresses should be prohibited at machines. Hairnets or caps should be worn. The type of clothing to provide depends upon the kind of work to be performed. Near moving machinery, no wide skirts, loose sleeves, flowing ties or frills of any kind should be allowed. Slacks with tucked in blouses or coveralls have been found effective and can be made attractive. Neither slacks or sleeves should have cuffs. Most women like to wear uniforms of some type for they add to their feeling of importance.

Long hair is a serious problem for static electricity can cause serious accidents at machines. Therefore, caps, turbans or nets should be provided. Shoes are likewise important. Uncomfortable shoes cause fatigue and may result in accidents. A common cause of accidents among women is tripping on stairs due to catching the

SOME JOBS WOMEN CAN DO

As well as men	Better than men	Well after training
Milling machine	Drill press (light)	Working with precise tolerance
Light punch and forming press	Coil and armature winding	Welding
Bench and small lathes	Soldering (light)	Sheet metal forming
Burring, polishing, lapping and buffing	Taping	Riveting
Packing and labeling	Stamping (light)	Light turret lathes
Tool crib and stores	Painting	Hand and automatic screw machines
Timekeeping	Inspection	Calibrating
Clerking	Small assembly	Tracing
	Stenciling	Drafting
	Touch-up	
	Masking	
	Racking and unracking	
	Work requiring finger dexterity, or tedious monotonous work	

heel. For comfort and safety, low heeled, closed toe shoes should be required. Low heels prevent turned ankles and fatigue, and closed-toes prevent injuries from stubbing the toe and the entrance of small particles of metals or other materials. Safety shoes are highly desirable for preventing toe injuries.

Fatigue: While women are excellent for highly repetitive and monotonous work, every effort should be made to prevent fatigue by furnishing posture chairs. The work should be so laid out, if practicable, so that the women can continue their work as well while standing, in order to allow some change in working position. In addition, it is desirable to have them go after materials rather than have the materials brought to their bench. This helps to relieve the monotony. Rest periods are widely used as a preventive measure against fatigue and monotony. Ten minutes is generally provided during the morning and afternoon. During these periods, women should be allowed to eat or drink, or to lie down in the rest room where conditions warrant such rest.

Noise is an important factor to consider, not only in the production of fatigue, but often in creating nervous disorders. The employment of women from the home environment may result in neurological maladjustment, poor work quality and low production. Some noise control is possible by special machine mountings, the use of sound absorbing materials and the purchase of fairly quiet machines where possible.

Illness and Absenteeism: Absenteeism among women will result from occupational and non-occupational illness. It has been reported that sickness absenteeism among women in industry is high. A daily absence of 10% is not unusual. Their annual rate exceeds that of the men by approximately 60% and their disability periods are corresponding higher. This high absenteeism is due chiefly to non-occupational illness and can be controlled to a great extent by a thorough industrial medical program.

1. *Occupational Illness Factors*

It has been stated that lead and benzol are more harmful to women than to men. Other materials believed to more severely affect women are T.N.T., carbon tetrachloride, carbon disulphide, and mercury. However, further medical studies are necessary to definitely substantiate this opinion.

In addition, women appear to reveal a greater susceptibility to dermatitis than men when first exposed to and in contact with solvents, oils and dusts.

2. *Non-Occupational Illness*

More important than occupational illness are those of non-occupational origin which cause many times more lost time than those of the former type. As women enter industry for the first time, illness will steadily increase unless both medical and engineering control measures are afforded.

The judicious employment of women from the consideration of production, as well as health,

should necessitate a medical and engineering control program. A physician on a full or part-time basis, should be employed to ensure the proper selection and placement of employees and for the maintenance of good health. The employment of a nurse can assist greatly in the maintenance of this program. The engineering control program should be based on the control of atmospheric contaminants, good plant housekeeping, ample ventilation, the provision of good sanitation facilities, and ample illumination.

BENZOL

Because of the difficulties in obtaining toluol, benzol is finding increased use as a solvent. The Massachusetts Division of Occupational Hygiene has issued the following five precautionary measures:

(1) Determination of atmospheric benzol vapor concentrations in workrooms.
(2) Urine sulfate tests to detect harmful exposures.
(3) Exhaust ventilation or other means to maintain atmospheric concentrations with the safe limit of 75 parts per million parts of air.
(4) Competent medical supervision of the health of workers exposed.
(5) Labeling of all containers with poison warning, in compliance with the Massachusetts benzol labeling law.

ELECTROPLATING HAZARDS

The recent code of the American Standards Association for Safety in Electroplating Operations classifies the health hazards in electroplating as follows:

Class 1 — *Severe Hazard*
Chromium plating
Arsenic plating

Class 2 — *Moderate Hazard*
Cyanide solutions for plating copper, brass, bronze, zinc, cadmium.
Tin plating from alkaline baths.
Anodizing aluminum.
Deplating operations that evolve gases.

Class 3 — *Slight Hazard*
Cyanide solutions for plating gold and silver.
Acid or neutral solutions for plating copper, zinc, nickel, lead.

LONGER TRAINING PERIOD MEDICAL REPLACEMENT CENTER,

Camp Barkeley, Texas — June 15, 1943 — (SPECIAL) — Beginning with the class which reports for training on July 9, the Medical Administrative Corps Officer Candidate School is lengthening its training period to 16 weeks, four more than the present program calls for.

In announcing this scheduled compliance with a War Department directive, Col. George E. Armstrong, assistant commandant of the Camp Barkeley school, also said, "The new schedules will involve no addition of material, it will merely mean a more intensive coverage and study of the work now included." All the departments of the school — training, administration, logistice, tactics, sanitation, and chemical warfare — will be allotted some of the extra hours added to the curriculum.

The present field work will be especially affected by the new schedules which have been submitted to the War Department training division. A continuous problem in medical support will be carried out during a six-day bivouac for each Camp Barkeley class, and the candidates will practice choosing aid station sites, evacuation routes, and other medical installations in simulated battle conditions.

The strength of the school, 12 companies, will remain the same, with the result that the output will be slightly decreased. It is felt that this decrease will be more than compensated by the invaluable extra time spent upon the subjects in the curriculum.

Over 6,000 men have already received commissions as second lieutenants in the Medical Administrative Corps from the Camp Barkeley school, which is commanded by Brig. Gen. Roy C. Heflebower. Another larger group was commissioned by the school at Carlisle Barracks, Pa., before the MAC school there closed this spring. The non-medical functions of this youngest of the army Medical Department's officer corps have proved invaluable in many fields.

★ BUY WAR BONDS ★

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

Colonel F. Garm Norbury was in Jacksonville early in June on leave from Camp White, Oregon. He also visited the office of the Society at 30 North Michigan Avenue and wished to be remembered to his friends.

At the annual meeting of The Chicago Society of Internal Medicine, held on May 24, the following officers were elected: President, Italo F. Volini; Vice-President, Howard Wakefield; Secretary, Howard L. Alt.

Samuel Edgar Munson, Past-President of the Illinois State Medical Society, of Springfield was honored June 10th at a dinner held in the Leland Hotel, Springfield. Dr. Andy Hall, Mt. Vernon, presented Doctor Munson with the 50 year pin and certificate of the Illinois State Medical Society. The following editorial appeared in the June 10th issue of the Springfield Register:

A Milestone Of Service

The rounding out of a half century of intimate personal service to mankind is a record vouchsafed to few physicians these strenuous days and provides an occasion of honoring which is correspondingly infrequent in the profession. Thus the golden anniversary dinner to be given Dr. Samuel E. Munson at the Leland this evening by the Sangamon County Medical Society is of special interest to the community and the clientele he has served in this area over the long span of the years.

Medicine is universally regarded as one of the noblest callings in the category of human service. The physician is guide, counselor and confidant to his patients, and his influence in their lives is a great factor in their welfare and happiness. In emulating the example of the Great Physician, he has a wonderful opportunity and privilege.

Dr. Munson came to Springfield as a young man and down the many years he has made a fine and honorable place for himself in the profession and the community. It is a carrer of which he may well be proud as his confreres prepare to honor him this evening. Also it is a happy circumstance that felicitations are reaching him while he is still "in harness," that he may know that his long service is recognized as it should be — flowers of appreciation, not of remembrance.

DR. H. V. HULLERMAN RETURNS TO STATE HEALTH SERVICE

Released in the interests of the war from local maternal and child health service in the Peoria Health Department, Dr. Hugo V. Hullerman has been reinstated under Illinois State Civil Service regulations to serve a larger population as Chief of the Division of Maternal and Child Hygiene, Illinois Department of Public Health. Dr. Hullerman, who has had 3 years of experience as a key administrative employee of the State Department of Public Health, and who received the degree of M.S.P.H. at the University of Michigan in 1939, was Chief of the Department's Division of Local Health Administration until June, 1942, when he joined the staff of the Peoria Health Department. In his new capacity, effective July 1, 1943, he succeeds Dr. Fred L. Adair, who was recently called to Wash-

ington, D. C., to accept a position with the Food Distribution Administration.

MARRIAGES

Robert Lee Atkinson, Bloomington, Ill., to Miss Martha Jane Prindle of Evanston in March.

DEATHS

Adelbert L. Anderson, Chicago; Chicago Medical School, 1923. Physician and teacher in Chicago public schools for 25 years. Died June 9, 1943 at the age of 46 years.

Carl W. Apfelbach, Chicago; Rush Medical College, 1922. Medical director of Presbyterian Hospital and leading pathologist; Associate professor of pathology, Rush Medical college; attending pathologist, Cook County Hospital. Died June 25, 1943 at the age of 49.

Frank Clare Bawden, Pontiac; Rush Medical College, 1902. Practiced in Atlanta, Illinois for 9 years before going to Pontiac. Died May 26, 1943 at the age of 66.

Samuel E. Beecher, Chicago; Jenner Medical College, 1906. Physician and dentist in Chicago for 25 years. Died in June, 1943 at the age of 73 years.

Arthur Dean Bevan, Chicago; Rush Medical College, 1883. From 1883 he served 4 years with the United States Marine hospital service. Was professor of anatomy at Oregon State University for one year. Served as professor of anatomy and head of the surgical department of Rush Medical College and since 1901 had been professorial lecturer on surgery at the University of Chicago. During World War 1 was director general of surgery in the office of the United States Surgeon General in Washington, D. C. In 1918, he was made an officer of the Legion of Honor of France. Was former president of the Chicago Medical Society and in 1932 was elected president of the American Surgical Association. Was chief surgeon at Presbyterian Hospital for many years; he donated the first million dollars for the expansion of the hospital's facilities. Died June 10, 1943 at the age of 81 years.

Frederick O. Bowe, Chicago; Northwestern University Medical School, 1903. Associate in obstetrics at Northwestern University Medical School; attending obstetrician, Chicago Lying-In Hospital and Dispensary, John B. Murphy, Evangelical Deaconess and Walther Memorial Hospitals; attending gynecologist and consulting obstetrician, Illinois Masonic Hospital. Died May 20, 1943 at the age of 64.

Charles M. Bumstead, Monticello; University of Pennsylvania School of Medicine, 1898. Was physician for the Wabash and Illinois Central Railways and company physician for the Illinois Terminal Railroad. Mayor of Monticello for two years. Was president of the staff of the Monticello Hospital. Died May 30, 1943 at the age of 67 years.

John Walter Dennis, Chicago; Loyola University School of Medicine, 1922. Practiced in Chicago for 20 years. Died May 24, 1943 at the age of 47 years.

Clarence S. Duner, Chicago; Rush Medical College, 1917. Had practiced medicine on Chicago's south side for 25 years. Served as lieutenant in the navy in World War 1. Was on the staff of the South Shore Hospital. Died May 28, 1943 at the age of 50.

Teresa A. Garrett, Brookport; National University of Arts and Sciences Medical Department, St. Louis. Only physician in Brookport, died June 17, 1943 at the age of 68.

Medical Journal Galley—112A

Ernest Nelson Greenman, Kankakee; Jefferson Medical College of Philadelphia, 1912. Practiced medicine for 30 years. Died May 31, 1943 at the age of 57 years.

Otto Karl Handke, River Forest; Northwestern University Medical School, 1897. Died in June, 1943 at the age of 78 years.

Don S. Harvey, Chicago; Rush Medical College, 1891. Practiced medicine half a century. Was head of the staff of the South Chicago Hospital for several years. Died May 2, 1943 at the age of 75.

Isabella C. Herb, Chicago; Northwestern University Woman's School, 1892. Post-graduate work at Johns Hopkins and abroad. Clinical professor of Surgery Anesthetics, Rush Medical College; chief anesthetist, Presbyterian Hospital. Died May 28, 1943 at the age of 78 years.

J. M. Holmes, Monticello; University of Illinois College of Medicine, 1902. Physician in Piatt County for 40 years. Died June 10, 1943 at the age of 76.

Gerald C. Hunt, Springfield; University of Illinois College of Medicine, 1916. Urologist and dermatologist in Springfield for last 20 years. Served as a captain in World War 1 and saw service overseas. Member of Sangamon post No. 32 of the American Legion and the D. A. V., and medical director of both organizations. Died suddenly of a heart attack on May 15, 1943 at the age of 52 years.

Lt. Abe Hyman, was Chicago physician before he joined the army last November; Loyola University School of Medicine, 1938. Was killed when a truck in which he was riding skidded in loose gravel and overturned at Dermott, Arkansas, May 17, 1943. He was 33 years old.

William K. James, Chicago; Loyola University School of Medicine, 1911. Was a 32nd degree Mason and a Shriner. Died May 20, 1943 at the age of 58.

John H. Jarvin, Chicago; Chicago Medical School, 1920. Died June 21, 1943 at the age of 55.

Otto J. Jirsa, Chicago; Chicago College of Medicine and Surgery, 1916. Attending urologist at the Hospital of St. Anthony de Padua. Died suddenly June 14, 1943 at the age of 48.

Jane Reid Keefer, Oak Park, retired; Women's Medical College of Pennsylvania, 1889. Practiced medicine in Sterling, Illinois for 47 years. Died May 30, 1943 at the age of 80 years.

Alonzo Homer Kenniebrew, Springfield; Meharry Medical College, Nashville, 1897. Died May 20, 1943 at the age of 68.

William H. Lycan, Charleston; Chicago Homeopathic Medical College, 1891. Had practiced in Charleston about 50 years. Died suddenly May 19, 1943 at the age of 78.

Alban Leo Mann, Elgin; Bennett College of Electric Medicine and Surgery, 1883. Was city physician for Elgin from 1912 to 1937. Died June 1, 1943 at the age of 83.

Eben P. S. Miller, Chicago; Harvey Medical College, 1905. Member of the staff of Garfield Park Hospital; medical examiner for selective service board 123. Died June 16, 1943 at the age of 70 years.

James L. Miller, Waukegan; Loyola University School of Medicine, 1916. Was veteran of the Spanish-American War. Died June 26, 1943 at the age of 70 years.

Samuel Moore, Chicago; University Medical College, Kansas City Missouri, 1898. Had practiced medicine in Chicago for 45 years. Was a member of the staff of Garfield Park Hospital. Died June 15, 1943 at the age of 70.

Emanuel F. Napieralski, Chicago; University of Illinois College of Physicians and Surgeons, 1903. Died June 25, 1943 at the age of 65.

Sampson James Morris, Chicago; Chicago College of Medicine and Surgery, 1910; on the staffs of St. Mary's, Columbus and St. Elizabeth's hospitals; a field health officer for the city health department, aged 58; died, April 10, in Van Nuys, Calif., of cerebral hemorrhage.

Vivian John Neale, Chicago; Loyola University School of Medicine, 1916, and graduate of the Baltimore Medical School. Died in June, 1943, at the age of 50.

Albert Everett Obermeyer, Arcadia; Barnes Medical College, St. Louis, 1906. Was practicing physician in Morgan County for 37 years. Died May 25, 1943 at the age of 66.

George Thomas Palmer, Springfield, died at his home Monday, June 14, 1943, following a long illness from heart trouble. For many years he was an outstanding authority on tuberculosis, becoming interested in this work early in his professional career. He personally owned and operated the Palmer Sanitarium at Springfield.

Dr. Palmer was a grandson of General John M. Palmer, Governor of Illinois, United States Senator, and candidate for President of the United States in 1898. In 1909 he became the first professional health officer of the city of Springfield, and inaugurated may changes which markedly lowered mortality and morbidity rates in that city within a relatively short time.

He was born in 1875 in Springfield and spent his entire life in and around that city; graduated from Northwestern University Medical School, Chicago, in 1898; was the author of many scientific articles principally on the subject of tuberculosis, which were published in medical journals throughout the country. For 10 years, 1913-1923, he was president of the Illinois Tuberculosis Association, and for 12 years he headed the local tuberculosis clinic. While he was active in the work of the Illinois Tuberculosis Association he conducted clinics in many counties throughout the state. He was buried in Oak Ridge Cemetery, Springfield, June 16th.

Louis W. Pease, Chicago; Detroit College of Medicine, 1896. Was veteran of the Spanish-American War. Afterwards spent three years as a surgeon in the Philippine Islands. Died of a heart attack May 20, 1943 at the age of 63.

William Marcus Petersen, Chicago; Marquette University School of Medicine, Milwaukee, 1902. Practicing physician and surgeon in northwest Chicago for 40 years. Died June 23, 1943 at the age of 67.

Bryant R. Selden, Sterling; University of Illinois College of Medicine, 1927. Was resident in surgery at St. Luke's Hospital, Bethlehem, Pa., for one year. Had practiced medicine in Sterling since 1935. Died of pneumonia May 29, 1943 at the age of 46 years.

FIND HAIR'S BREADTH IS NOT UNIFORM

Using the term "a hair's breadth" to signify an extremely small unit of measurement means nothing, scientifically at least, since recent studies on human hair made by Morris Steggerda and Mrs. Ruth Eckhardt of the Carnegie Institution at Washington, D. C., prove that hairs from different parts of the body vary greatly in their width, S. R. Winters of the same city reports in *Hygeia, The Health Magazine* for May.

"Using a wool measuring device developed by J. I. Hardy of the United States Department of Agriculture, Steggerda and Mrs. Eckhardt are able for the first time to determine quickly and adequately the size pattern of the hairs on anybody's head," Mr. Winters explains.

Tuberculosis will become a plague affecting approximately ten million persons in Europe after the war. Tuberculosis is the delayed "action bomb" of the diseases of war. Robert E. Plunkett, M.D., Bull. N.T.A., Jan. 1943.

P. R. N.

The Jocular Jingles of C. G. F.

by

Charles G. Farnum M. D.

Peoria, Ill.

SEASONABLE SONNETS.

JULY

The sun this month grows hotter day by day,
We ooze from crown of head to soles of feet;
Ambition falters first then fades away,
As languidly we walk the hot concrete.
We celebrate the Fourth with noise and sports,
Forgetting wholly what it signifies;
We lie about in bathing suits or shorts,
The garden slowly withers up and dies,
The beaches, covered by a sunburned crowd,
Replace baseball and golf — too hot to play.
We cry for northern lakes and streams aloud,
Each day is but another blistering day.
Too hot to work or think or even eat,
So all we do is whine about the heat.

Geriatric Jocularaties.

I have known Uncle Timmie and Aunt Nora since my childhood and am very fond of them.

Early one morning the phone rang and a shrill voice asked,

"Is that you Cha-arlie?"

I recognized it instantly and said, "Yes Aunt Nora. What is wrong this morning?"

"Well, it's Uncle Timmie. Ye know he's like a mule. Whin a mule don't eat he's sick. An' Uncle Timmie ain't eatin'."

"Yes, but just what does he complain of?"

"Nawthin'. He jist won't eat. An' he's got a brith on 'im that'd knock ye down an' he's meaner'n a bear with a sore head."

"Do you think he might need a laxative?"

"Now there ye' are. More'n likely that's jist what's the mather. But what'll I give 'im?"

"What have you in the house?"

"Well I got some ipsom sa-alts."

"Will he take epsom salts?"

"Will he take 'em! Say, he'll take 'em if I give 'em to him an' that I'll be doin'. But how much shall I give 'im?"

"O, I think a level tablespoonful should be enough."

"Right ye a-are Cha-arlie an' it's as good as done."

That afternoon the buzzer sounded and I took up the phone. A feeble voice said, "Is that you Cha-arlie?"

"Yes, Uncle Timmie. But what in the world is the matter? You sound like you had one foot in the grave."

"It's worse 'n that. But what I want to know is how much 'o them sa-alts did you tell the auld woman to give me annyway?"

"I told her to give you a level tablespoonful."

"Merciful Hivens! She gave me a-leven."

A Gardening Triolet.

Why is it gardens fail to thrive
In spite of effort, thought and care?
We dig and hoe and ache and strive;
Why is it gardens fail to thrive
And only half the things survive
As we work on in mute dispair?
Why is it gardens fail to thrive
In spite of effort, thought and care?

PRO AND CON.

I've struggled with this golf game over many, many years,
I've studied all its problems pro and con,
I've taken many lessons with a host of hopes and fears,
Have played a lot and practiced off and on.

No pro has ever told me anything I did was right,
They criticize my stance or blame my grip,
My follow-through is absent or I'm all too tense and tight,
My feet are wrong or else my head or hip.

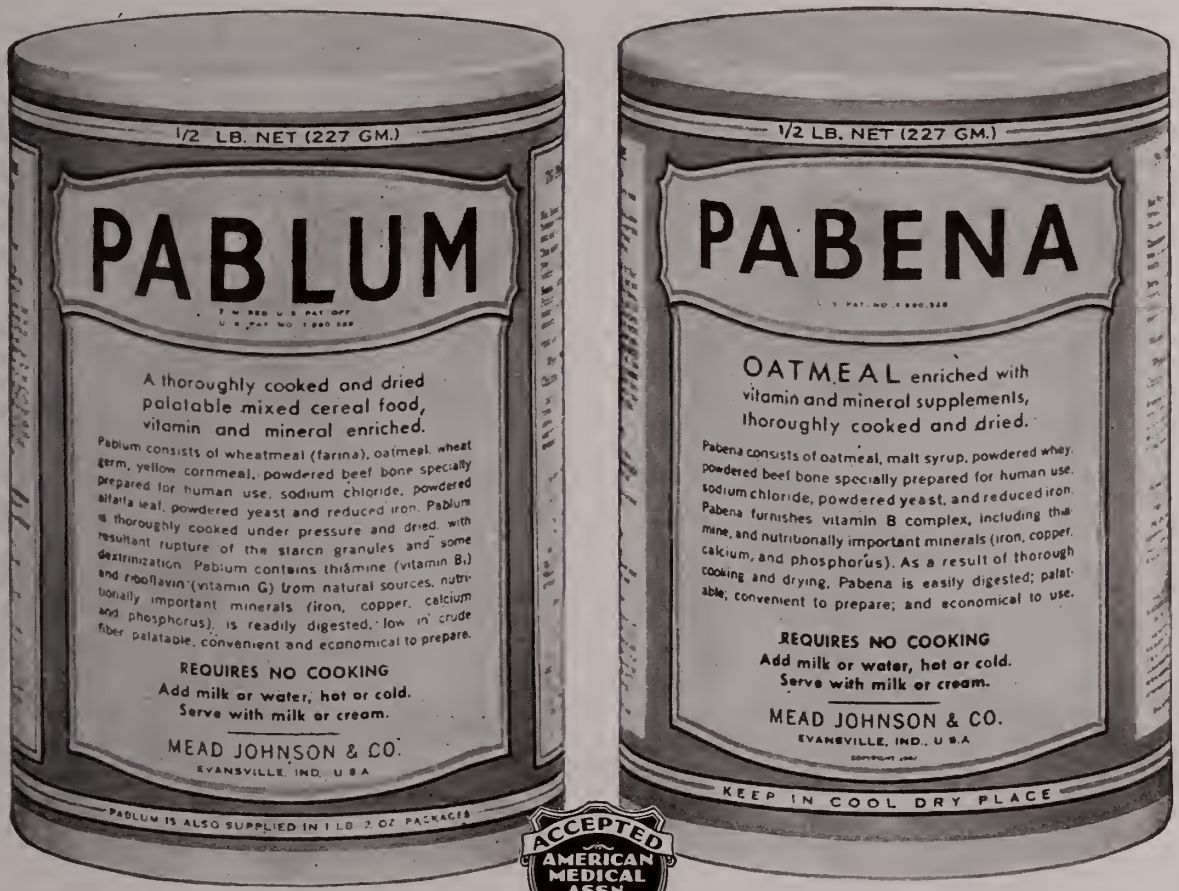
My back-swing's bad, I'm much too short, I pivot not at all,
I always squat or wobble, weave or sway,
They all declare I never keep my eye upon the ball,
And with it all my game gets worse each day.

I've taken all these lessons from the best that I could see,
I've listened to their teachings pro and con,
If I'm to judge their worth by what they did NOT do for me,
Then I conclude that pro is mostly con.

Professor Paresis has found his Victory Garden a thing to try his patience. It was hard enough to get each pea and bean in the ground right side up as a friend had told him he must do, but when it came to getting each radish seed properly placed the task became almost insurmontable. But it was finally accomplished.

And then when things began to grow he could not tell vegetables from weeds until he learned to apply the following simple rule — if it grows sturdily without care or attention it is a weed. If it becomes puny and scrawny in spite of cultivation, fertilizer, prayer and profanity it is a vegetable.

1932 **1942**



8 oz.—1 lb. 2 oz. 8 oz. only

PABLUM, the pioneer precooked fortified infant cereal, now has a companion-product: Pabena is a precooked oatmeal cereal, lending variety to the infant's diet and offering the nutritional and convenient features of Pablum.

BOTH continue to be marketed and advertised only to the medical profession. Samples available on physicians' requests.

MEAD JOHNSON & CO., EVANSVILLE, IND., U.S.A.

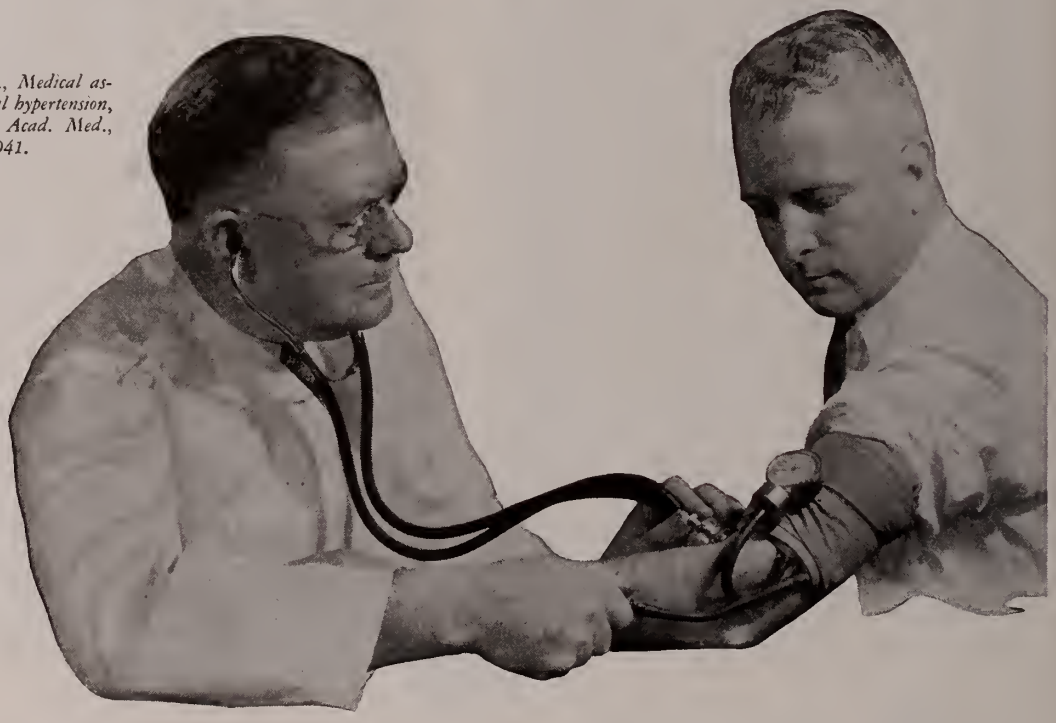
THE IMPORTANCE OF HYPERTENSION

"The importance of hypertension as a problem of health needs emphasis. High blood pressure is both a common disease and a serious one. Indeed, it appears to be more common and more deadly than cancer."*

"About a fourth of all deaths of individuals past fifty years of age is referable to hypertension."*

". . . hypertension usually is a serious disease which terminates the lives of those it afflicts within a relatively short period."*

**Allen, E. V., Medical aspects of arterial hypertension, Bull. N. Y. Acad. Med., 17: March, 1941.*

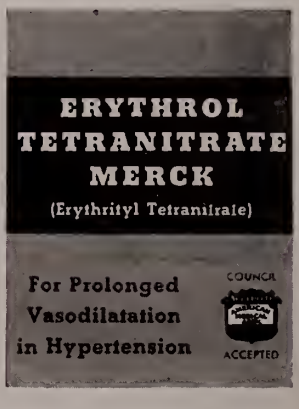


PROLONGED REDUCTION OF HIGH BLOOD PRESSURE WITH ERYTHROL TETRANITRATE MERCK

TREATMENT of arterial hypertension today is necessarily directed toward relief and not cure. The use of Erythrol Tetranitrate is suggested as an additional measure when the usual regimen of rest and dietary control has proved inadequate.

Erythrol Tetranitrate offers the advantage of producing such a prolonged reduction in blood pressure that administration three times daily may be adequate to maintain the desired level. It may be prescribed over an extended period with sustained effect.

The vasodilator action of Erythrol Tetranitrate usually begins about fifteen minutes after administration and persists for a period of three to four hours. The average dose is ½ to 1 grain (0.03 to 0.06 Gm.) every 4 to 6 hours, in tablets as marketed.





MERCK & CO., Inc. *Manufacturing Chemists* RAHWAY, N. J.

TECHNIC OF LIPIODOL INSTILLATION

VISUALIZATION OF *Sinus and Fistula Tracts*



THE instillation of Lipiodol—iodized poppy-seed oil containing 40 per cent iodine in chemical combination—into sinus and fistula tracts provides an accurate means of outlining the extent, nature, and tortuosity of these cavities. Lipiodol (warmed to body temperature) is introduced directly into the external opening by means of a drainage tube if present, or an acorn tip attached to the syringe. After the injection the opening of the tract is closed with adhesive tape in order to prevent escape of the oil while roentgenograms are being taken.

THE above procedure is applicable in the roentgen exploration of virtually any sinus or fistula tract. Fistula-in-ano, empyema cavities, persistent, draining sinuses, tracts leading into joints, and other soft tissue wounds which appear to be channels and whose distal ends have not been accurately located, are all promptly visualized by the instillation of Lipiodol.

•

Physicians are invited to request the brochure "The Applicability of Lipiodol in Roentgenography and the Technic of its Use," which describes in detail the many uses of Lipiodol.



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Book Reviews

TRANSURETHRAL PROSTATECTOMY. By Reed M. Nesbit, M.D., F.A.C.S., Associate Professor of Surgery, University of Michigan Medical School in charge of the Section of Urology, Department of Surgery. With 94 Drawings Illustrating Technique by W. P. Didusch. A Chapter on the Vascular Supply of the Prostate Gland by Rubin H. Flocks, M.D. 1943. Charles C. Thomas, Publisher, Springfield, Illinois; Baltimore, Maryland. Price $7.50.

This is a valuable and timely monograph presenting a concise and clearcut description of the management of prostatism by transurethral resection.

The information is based on the wide experience of the author who through constant and unceasing observation perfected a rapid method of performing transurethral prostatectomy (not merely an "adequate resection or revision").

The volume is divided into three parts. The first part deals with the principles and techniques of transurethral prostatic resection; the second part is an appraisal of the method and the third is a historical resumé. A very useful bibliography is added; it covers forty-three pages and is classified according to subject matter. Clearcut original drawings by Wm. P. Didusch are excellent visual aids.

The first chapter, written by R. H. Flocks, deals with the important topic of the arterial blood supply to the prostate gland. A knowledge of the blood supply is important as a preliminary to everyone learning the technique. Flocks stresses the importance of its role in the normal healing process, and in the production of certain complications, such as prolonged sloughing, delayed healing, persistent infection and late secondary hemorrhage.

The second chapter describes the essential instruments necessary to proper performance of transurethral prostatectomy.

In the third chapter, the author gives various hints on the manipulation of the resectoscope. He describes many maneuvers for performing an adequate and easy prostatectomy and to secure adequate hemostasis.

The fourth chapter is a short resumé on the diagnosis of prostatism, the indications for conservative and surgical therapy and the choice of a particular operation. Nesbit believes that all hypertrophies of the prostate gland, except those which are excessively large, can be adequately treated by the transurethral method. The author disproves the previously current objections to transurethral resection.

The author favors the low spinal anesthesia. Sodium pentothal is employed for diagnostic and manipulative cystoscopic procedures and occasionally for a short transurethral resection.

In chapter six, entitled "Preoperative Management," the author discusses water exchange and stresses the importance of the fluid requirements of the patient with prostatism. There is a discussion of catheter and suprapubic drainage, cystography and cystometry. Preliminary vasectomy is not employed.

Chapter seven deals with a description of a systematic and planned technique for performing transurethral prostatectomy. The method consists of the avascularization of large masses of tissue at early stages in the operation, thus per-

(Continued on page 34)



Make the Gift Worth the Giving

Your gift of Camels to a service man has this to commend it:

First, cigarettes are the gift keenly appreciated in the armed forces.

Second, Camel is the brand the men say they prefer above all others.*

So make your gift Camels—the cigarette millions favor among all brands for smooth mildness, mellow, appealing flavor.

Send Camels by the carton—the way they're featured at your dealer. See or telephone him today.

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***With men in the Army, the Navy, the Marine Corps, and the Coast Guard, the favorite cigarette is Camel. (Based on actual sales records in Post Exchanges and Canteens.)**

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COSTLIER TOBACCOS

BUY WAR BONDS AND STAMPS



NEW REPRINTS AVAILABLE ON CIGARETTE RESEARCH—ARCHIVES OF OTOLARYNGOLOGY, FEBRUARY, 1943, PP. 169-173—MARCH, 1943, PP. 404-410. COPIES ON REQUEST.

Camel Cigarettes, Medical Relations Division, 1 Pershing Square, New York City

BOOK REVIEWS (Continued)

mitting a rapid, safe and relatively bloodless excision of the encircled masses of tissue.

Chapter eight deals with the postoperative management of the drainage system, fluid intake, irrigations, chemotherapy, removal of catheter, etc. In the presence of continued difficulty in voiding, the author advises early reoperation to prevent sepsis with septicemia and renal insufficiency. The patient's ability to void urine with ease and comfort constitutes the one satisfactory test of an adequate transurethral prostatectomy.

In chapter nine, complications are discussed. The author considers blood replacements during operation very valuable. The indications and technique of postoperative hemostasis are fully discussed. The more frequent use of perineal urethrotomy to avoid instrumental injuries to the urethra is stressed.

There is a good discussion of postoperative sepsis and rupture of the bladder with accompanying extravasation. The importance of the recognition of the causes for persistent postoperative urosepsis is stressed.

In chapter ten, there is a resumé of Huggins' work on carcinoma of the prostate.

Chapter eleven is an appraisal of transurethral prostatectomy. Transurethral resection is particularly indicated in those patients who are poor operative risks because of recent vascular accidents, coronary occlusion, impaired renal function or general debility. The author discusses the advantages of transurethral prostatectomy, the mortality rate, recurrence of prostatic obstruction, stricture formation, postoperative urinary function, two stage prostatic resections, etc.

The author replies to critics of transurethral prostatectomy in a strong and animated defense, praising N. Alcock for his support of the transurethral approach in the dark and gloomy days following the first wave of misconstrued enthusiasm for, and almost universal abuse of, the transurethral method.

The last chapter consists of a brief historical review of the development of transurethral prostatic resection.

The reviewer highly recommends this monograph to all urologists — the young and the old. H. C.

Skin Grafting, From a Personal and Experimental Viewpoint. By Earl Calvin Padgett, M.D., F.A.C.S., Professor of Clinical Surgery, University of Kansas School of Medicine, Kansas City, Kansas. Charles C. Thomas, Publisher, Springfield, Illinois and Baltimore, Maryland. 1942. Price $4.50.

Although skin grafting is recognized as one of the oldest of surgical procedures, there has been but little change in prevailing methods of technique in a considerable period of time. It is generally recognized that with the proper type of graft many soft tissue deformities may be alleviated provided the surgeon recognizes certain definite indications for this procedure and the graft is applied properly as to both technique and time of operation.

The author prefers to use a three-quarters thickness, or full thickness graft in the repair of many types of deformities, contractures from scars, etc. This can be done relatively easily with a dermatome which will insure uniform thickness and permit the transplanting of a large graft when it is desired. The three quarter thickness graft when the dermatome is used on clinical trial has proved to be that a take is almost certain, more so than when the full thickness graft is used.

Special consideration is given to the location of the area from which the graft is taken, the nutrition of the patient, the sex, age and even the race as is stated by the author. A granulating surface must be surgically clean and the proper time for the procedure must be considered carefully. The author in his interesting book has outlined carefully the histological, physiological and surgical factors which must be considered in order to get the maximum benefits through this procedure. His procedures have made it comparatively simple to remove a skin graft of any thickness with a rather definite assurance of complete success when proper consideration to the several outlined factors has been given.

The book will be of interest to many physicians both in general and special practice. With the growing demand for skin grafting in the treatment of severe burns to prevent undesired contractures, it should find a place in the libraries of many present day practitioners.

(Continued on page 36)

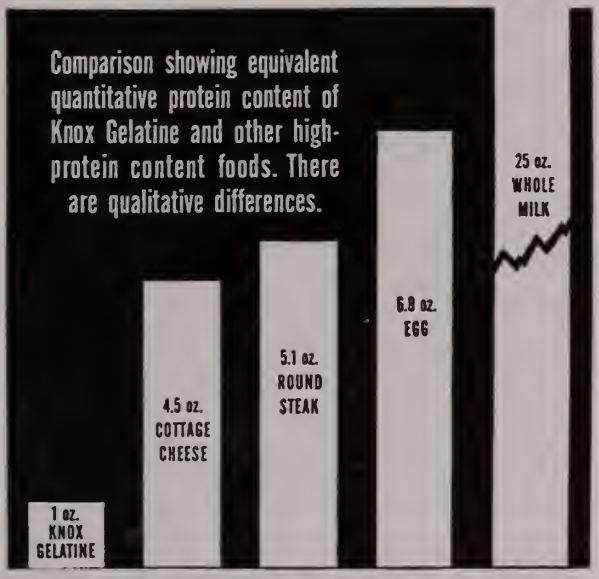
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BOOK REVIEWS (Continued)

INJURIES OF THE SKULL, BRAIN AND SPINAL CORD. Neuro-Psychiatric, Surgical and Medico-Legal Aspects. Edited by Samuel Brock, New York University, Second Edition. The Williams & Wilkins Company Baltimore 1943. Price $7.00.

The first edition of this book appeared in January, 1940, and twenty-two contributors wrote a series of monographs on this important subject to develop the book as edited by Dr. Brock. In view of the fact that so many important advances have been made during the past three years, a second edition has been printed recently to bring the book completely up to date.

Sulfa-chemotherapy, electro-encephalographic studies, newer observations now being made by medical officers attached to the armed forces and other important developments are all included in this latest volume.

The contributors, all well known specialists in this important field, have correlated their contributions to give a more complete picture of the problems arising from this large group of injuries. In recent years, with the ever-increasing number of traffic accidents, and today with more men working in industry than ever before, injuries of the skull, brain and spinal cord have increased enormously. These injuries vary from simple scalp lacerations to the more serious injuries to the brain and spinal cord, with hemorrhage and fracture to complicate the picture. Likewise in modern warfare, many injuries to these structures are seen frequently by the medical officers with the armed forces.

The book, divided into 23 chapters, is probably the most complete text as yet published on the various subjects, each of which is completely covered in the text. It should appeal especially to those working in industrial plants, to the traumatic surgeon, as well as to those many practitioners in civilian practice who too often these days, are compelled to give first aid attention to many cases of this type. It should likewise be of inestimable value to the men in service who may expect many head and spinal injuries resulting from combat, and who must first see the casualties before they are transported to the usual base for more complete care. Shock is properly considered, its recognition and treatment, which adds materially to the value of the book.

The medico-legal considerations pertaining to this type of injuries is given careful consideration, along with malingering and its detection. The editor states that the most important addition to the second edition, consists of a new chapter on electro-encephalographic findings in head injuries, based on studies at the Neurological Institute of New York, upon 244 patients through clinical and laboratory analysis. This is veritably "a collection of monographs in miniature, all of merit."

"ATLAS OF OBSTETRIC TECHNIC" by Paul Titus M.D., Obstetrician and Gynecologist to the St. Margaret Memorial Hospital, Pittsburgh, Pa. The C. V. Mosby Co., St. Louis, Mo.

The author presents in picture form, obstetric technic for normal and operative deliveries. The illustrations are very comprehensive and the titles brief. Sterility is treated as an obstetrical problem. There are also pictures of cervicitis and other postpartum problems.

This book should be of great value to the student, the general practitioner who does obstetrics, the surgeon who likes to hastily review the steps in an operative procedure, or, the obstetrician who likes an occasional quick review. It should be invaluable to the teacher of obstetrics who may not be good at illustrations himself, for the book is replete with illustrations on all obstetrical subjects.

The book is not offered as a text but as an adjunct to any good work on obstetrics. It should be welcomed by all persons interested in obstetrics. F.R.T.

PSYCHOSOMATIC MEDICINE. The Clinical Application of Psychopathology to General Medical Problems. By Edward Weiss, M.D., Professor of Clinical Medicine, Temple University Medical School, Philadelphia, and O. Spurgeon English, M.D., Professor of Psychiatry, Temple University Medical School, Philadelphia. W. B. Saunders Company, Philadelphia and London. 1943.

Those who have been in the practice of medicine over some period of time realize that the application of the procedures taught in medical schools and described in the usual text books

(Continued on page 38)



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on medicine do not necessarily give the physician all of the information that is desired to make the diagnosis and apply the proper therapeutic procedures to insure complete restoration of health.

In addition to the usual pathologic conditions which lead to disease, greater consideration must be given to psychopathology especially at a time when there is so much worry and unrest throughout a troubled world. Many emotional factors are present in the human family which must be given proper thought in the evaluation of symptoms, diagnosis and therapy. Many believe that at least one-third of the patients seen by physicians have certain emotional trends which contribute to an accurate diagnosis.

In these cases it is desirable to have a joint study made by the clinician and the psychiatrist in order to arrive at a definite conclusion. Much information along this line has appeared in recent years, and it seems desirable that the average clinician needs further enlightenment on the subject today more than ever before. Consideration should be given to the emotional life of most patients, and in the first two chapters of the book the authors discuss in detail psychosomatic problems in the practice of medicine and personality development and psychopathology. Symptoms will be found in the cardiovascular system, gastrointestinal system, endocrine system, respiratory system, genito-urinary system and the sexual funetion, central nervous system, the endocrine system, and in most other parts of the body which have important psychosomatic bearings.

A considerable amount of space in the book is devoted to treatment of "normal" problems in psychotherapy as well as special therapeutic procedures which may be definitely indicated to insure relief. A plea is made for more training in psychosomatic medicine and the recommended procedures for this training are outlined in a most interesting manner in the last chapter.

It is the opinion of the reviewer of this interesting well written book that it should be read carefully by the physicians willing to deviate from the classical clinical procedures to investigate what to many, may be a new field but one which line new frontiers, may be of inestimable value to those willing to enlarge their field of usefulness.

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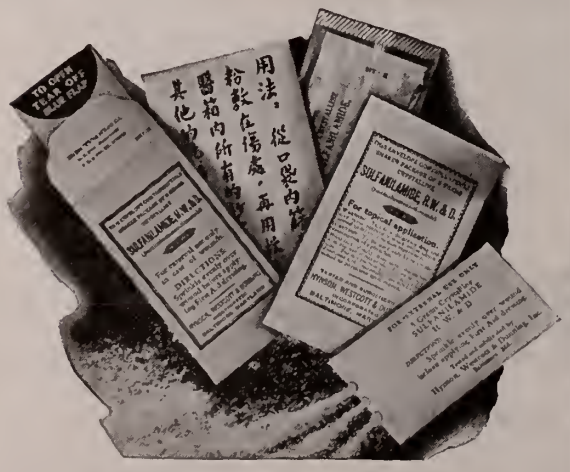
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Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

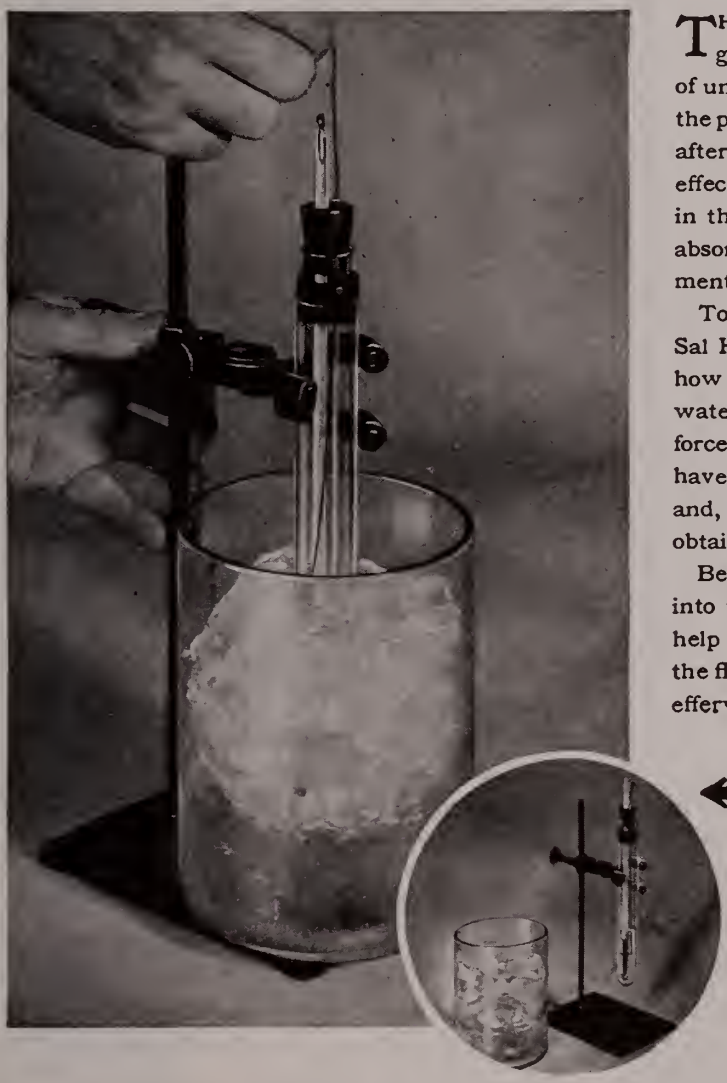
YOUR ARTHRITIS. What You Can Do About It. By Alfred E. Phelps, M.D., Introduction by R. Garfield Snyder, M.D. Illustrations by James MacDonald. William Morrow and Company, New York, 1943. Price $2.00.

PICTORIAL HANDBOOK OF FRACTURE TREATMENT. Edward L. Compere, M.D., F.A.C.S., Associate Professor of Surgery, Northwestern University Medical School; Chairman, Department of Orthopaedic Surgery, Wesley Memorial Hospital; Consulting Orthopaedic Surgeon, Chicago Memorial Hospital. Sam W. Banks, M.D., Associate in Surgery, Northwestern University Medical School; Attending Orthopaedic Surgeon, Chicago Memorial Hospital. The Year Book Publishers, Inc., Chicago, Illinois.

ALLERGY, ANAPHYLAXIS AND IMMUNOTHERAPY. Basis Principles and Practice. By Bret Ratner, M.D., Clinical Professor of Pediatrics, New York University College of Medicine; Visiting Pediatrician and Director of Pediatrics, Sea View Hospital; Associate Attending, Children's Medical Service, Bellevue Hospital; Consultant Pediatrician, French Hospital. The Williams & Wilkins Company, Baltimore, 1943. Price $8.50.

SURGICAL CARE. A Handbook of Pre- and Post-Operative Treatment. By R. W. Raven, F.R.C.S., Major, R.A.M.C., Late Surgeon, Emergency Medical Service; Assistant Surgeon, Royal Cancer Hospitals; Assistant Surgeon, Gordon Hospital; Surgeon to out-Patients, French Hospital; Late Arris and Gale Lecturer and Erasmus Wilson Lecturer, Royal College of Surgeons. The Williams and Wilkins Company, Baltimore, 1942.

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REPORT A TREATMENT REGIMEN FOR BARBITURATE POISONING

Three Doctors Cite Recovery Of Woman Who, In Suicide Attempt, Took Upper Limit Of What Is Considered Average Fatal Dose

High estimated or known dosages of the barbiturates, taken in suicidal attempts or otherwise, need not discourage heroic treatment but the latter must be immediate, include several suitable measures and must be sustained, C. J. France, M.D.; Morton Barnett, M.D., and F. F. Yonkman, M.D., Detroit, point out in *The Journal of the American Medical Association* for May 15.

They report the recovery of a woman who, in an attempt to commit suicide, took the upper limit of what is considered to be the average fatal dose. She was given picrotoxin and metrazol, to which the recovery is chiefly attributed. Caffeine with sodium benzoate and plasma with 5 per cent dextrose and saline solution also were administered.

"Barbital," the three physicians say, "in its various forms has been responsible for numerous suicidal attempts, many of them successful. The unsuccessful cases can be attributed to either insufficient dosage ingested or to proper antagonistic therapy (treatment) as is illustrated by the case reported here. . . ."

To emphasize the importance of their report, they point out that in 1939 it was stated "that more than two million doses of barbiturates were sold daily in the United States and that from 1932 to 1936 the national incidence of suicide by means of barbiturates was 4.2 per cent of that for all poisons except gases; the incidence in large cities ranged from 2 to 16 per cent. These figures also behoove us to concern ourselves with the most satisfactory modern and accepted form of therapy in barbiturate poisoning. . . ."

The woman whose recovery they describe, aged 32, was admitted to the hospital in shock one hour after she had taken a mixture of soluble pentobarbital and seconal.

"We believe this case to be of considerable interest chiefly because it demonstrates the value of immediate and persistent combined specific therapy," they say.

In their summary the three physicians say that

(Continued on page 44)



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PHOSPHORUS	0.25 Gm.	0.903 Gm.	RIBOFLAVIN	0.25 mg.	1.28 mg.
IRON	10.5 mg.	11.9 mg.	NIACIN	4.95 mg.	7.1 mg.

*Each serving made with 8 oz. milk; based on average reported values for milk.



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Medical Director

BARBITURATE POISONING (Continued)

"For successful treatment of barbiturate poisoning the following points should be strictly followed:

"Immediate antagonistic treatment with adequate and safe initial doses of picrotoxin and metrazol, dosage to depend on the condition of the patient and the amount of bariturate ingested, if known.

"Immediate hospitalization with prompt antishock therapy, including plasma, dextrose, saline solution . . . warmth and bed stilts, and any other agent or technic which might assist in the defeat of shock and promote excretion.

"Copious . . . enemas and early gastric lavage (washing out of the stomach) followed by . . . sodium sulfate solution left in the stomach for catharsis. . . .

"Constant observation with appropriate, sustaining and alternating doses of picrotoxin and metrazol, dosage again depending on the condition of the patient. . . .

"Constant observation until recovery is mandatory."

PHYSICIAN, IN HYGEIA ARTICLE, ADVISES ON CARE OF THE NAILS

Right or wrong, the appearance of the nails and hands is often considered as an index of one's character, so consequently care of the nails usually begins at birth, Herman Goodman, M.D., New York, declares in *Hygeia, The Health Magazine* for May.

"In childhood," he explains, "the problem of nail care revolves about the habit of nail biting. The psychologist claims nail biting is more or less normal. Nearly all mothers discipline the baby who persists in sucking the nail, or the finger tips when the nails are worn down. In any event, a young boy or girl who has a nail biting habit following the finger sucking of early childhood should have nail care. Some children are freed of the habit by acquiring pride in the appearance of their nails. This may be done by professional manicure, keeping the nail short without free or hangnail edges. . . . Some people claim to have cured the nail biting habit by the application of tart or bitter chemicals to the nail or finger extremities. This is not always effective;

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some children come to enjoy the bitterness or saltiness of the average safe chemical applied for this purpose.

"Nail care at home may be attempted as soon as the child appreciates what you are trying to do. Visits to a professional manicurist will usually do much more than you can. The introduction to nail care in an effort to stop nail biting should begin with the professional manicurist. The visit to the beauty shop and the attention given by nonfamily people may be the cause of turning the child from the habit, giving the pride of nail appearance mentioned earlier, and it may ultimately lead to normal nail growth. . ."

The question as to at what age colored nails should be permitted, tolerated or encouraged by parents cannot be arbitrarily answered, Dr. Goodman says, due to marked differences between chronologic age and social age, which depends on so many other factors.

"Nail lacquer coloration of the modern type is actually an outgrowth of research in the automobile paint and polish industry," he observes. "Noninflammable, modern cosmetic paints for the nail are modifications of the quick drying, noninflammable paints and lacquer finishes for automobiles. The production of a passable nail lacquer is an intricate process. The ingredients must be selected to be harmless, either singly or in combination. . . ."

Dr. Goodman warns that the fact that various nail lacquers do not conform to any one type of formula or recipe should influence one against attempting to mix nail lacquer cosmetics from two manufacturers and to apply the mixture on the finger nails, and that the same admonition applies against mixing various products from the same manufacturer.

"It is impossible to nourish the nail by an application to its surface," he says. "The appearance of the surface of the nail may be altered by physical or chemical means. The result is always temporary, as the nail continues to grow. Malformations or distortions of the nail surface due to injury of the matrix of the nail can be

(Continued on page 46)

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CARE OF THE NAILS (Continued)

removed or camouflaged by applications to the surface. . . .

"The question has often been asked whether or not nails 'breathe.' This is usually a preliminary question to one regarding the effect of nail lacquers on such breathing. The nail does not breathe. . . ."

FINDS TWO COMPOUNDS MAY BE HELPFUL IN HYPERTHYROIDISM

Boston Physician Says Preliminary Studies Indicate Thiourea And Thiouracil May Be Useful In Helping Control Condition

Preliminary studies indicate that two chemical compounds, thiourea and one of its derivatives, thiouracil, may be useful in the control of hyperthyroidism (excessive activity of the thyroid gland), E. B. Astwood, M.D., Boston reports in *The Journal of the American Medical Association* for May 8. "However," he says, "a true evaluation of the merits and dangers of such therapy (treatment) will require the observation of a large number of cases over a prolonged period of time.

"Compounds of the type used in this investigation have never before been administered to human beings except in isolated instances when small single doses were given for studies on intermediary metabolism (the physical and chemical processes by which life is produced and maintained). Possible toxic (poisonous) reactions of an acute or chronic nature may occur and in the few cases thus far studied one severe and several mild episodes were observed. . . . Thiourea is apparently the least toxic substance of the entire series, but for clinical purposes it has the disadvantage of imparting a characteristic odor to the breath, and with some persons it is disagreeable to the taste. The only evidence of toxicity thus far encountered with thiourea was a skin rash. . . . Thiouracil is apparently free of these disadvantages, and although it is more active it may prove to be more toxic. . . ."

Dr. Astwood explains in the introduction to his paper that two series of chemical compounds have been found to possess the unique property

of inhibiting the function of the thyroid gland. The administration of these agents to experimental animals is followed, after a short latent period, by a lowering of the basal oxygen consumption, a decrease in the rate of growth and development and a diminished food intake — changes which are consistent with a state of hypothyroidism (subnormal functioning of the thyroid gland). He says that the object of the investigation he conducted was to determine whether the function of the human thyroid gland could be inhibited by these compounds and to obtain information concerning their dosage and toxicity in persons with normal thyroid glands and in cases of hyperthyroidism.

More than one hundred compounds were tested in order to select highly active substances of low toxicity. Most of the derivatives of thiourea exhibited some activity but varied widely in toxicity, thiourea itself being the least toxic of all.

The substances under investigation were administered by mouth in the form of tablets or in capsules. Four persons exhibiting no evidence of hyperthyroidism were treated, 2 with thiourea and 2 with thiouracil. Treatment was continued for thirteen to thirty days and during this period no change in the basal metabolic rate occurred. The patients exhibited no signs and experienced no symptoms that could be attributed to the drugs. Three patients with hyperthyroidism were treated with thiourea and thiouracil with encouraging results.

"Further studies," Dr. Astwood says, "will be necessary in order to determine the optimal therapeutic regimen for long term treatment. Certain cases of hyperthyroidism will probably require treatment over many months or even years, while in other cases the state of hyperthyroidism is apparently temporary and self-limited. It may be possible by the use of drugs of this type to maintain such patients in normal health during this period of temporary disturbance. . . .

"A simple chemical method for the determination of the concentration of these substances in the blood might prove to be of value in estimating the proper dose by offering a means of comparison with the more exact determination of dosage requirements that can be made on experimental animals. . . ."

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SAYS CONSCIENTIOUS OBJECTOR PROBLEM IS ONE OF REEDUCATION

An Appreciation Of Civic Responsibilities And Feeling Of National Conscience And Unity Must Be Aroused, Journal States

Pointing out that numerically the problem of the conscientious objector is of little importance, *The Journal of the American Medical Association* for May 15 says that "From an ethical point of view the problem is one of reeducation, of instilling in the individual the appreciation of his civic responsibilities and of awakening in him a feeling of national conscience and national unity.

"The term conscientious objector came into use in the first world war, although reference to the problem appears in Gibbon's 'Decline and Fall of the Roman Empire.' The Mennonites were exempted from military service in the Netherlands in 1575. In the United States, members of some religious denominations were exempted from general military service during the Civil War. At the commencement of the first world war there were in the United States, according to D. E. Hoag, about 300,000 males classified as conscientious objectors. About 30 per cent of these were of military age. In June 1918 the Surgeon General's Office sent out to various camps a special form for examination of conscientious objectors. Mark A. May, in his report to the Office of the Surgeon General, presented the then available information concerning the intelligence, education, grounds of objection and social and political history of conscientious objectors. The report covered twenty camps and represented about 1,000 objectors. May pointed out that the intelligence of the conscientious objectors, as measured by the Army mental tests, was, on the average, above that of the white draft of the Army as a whole. At least 97 per cent of the men had sufficient intelligence to know what they were doing. About 50 per cent were Mennonites; less than 10 per cent of these went beyond the eighth grade. The

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12 per cent of the total series who reached college were either Socialists, Dunkards or Friends. The various religious sects involved, with the possible exception of the Friends, believe in the literal interpretation of the Scriptures. The grounds of objection were, in general, three: religious, social, and political. The religious objector makes his appeal to the Bible, church creed and to conscience, the social objector to individual freedom; the political objector usually bases his objection on the ground of alien citizenship.

"Harry Stalker of Edinburgh reports the results of an examination of 12 persons with psychiatric states who were also conscientious objectors. They represented three types of personalities. . . . The meager reports from continental European countries, whose laws do not provide for conscientious objectors, deal almost entirely with persons mentally involved. Thus, among 31 objectors studied by Peter Schulthess there was only 1 sane person; 15 were psychopaths, 4 of them feebleminded and 6 schizoid (split personality). . . .

"Prompt discharge from the army and appropriate institutional treatment are the effective solution of the problem of the psychopathic objector. The problem of the sane objector is much more complicated. There is, of course, no intention on the part of our government to compel the genuinely conscientious religious objector to enter the armed services, for that would amount to violation of his constitutional rights, something we must guard against even in time of war. However, the degree of sincerity of his beliefs is difficult to determine. In the first world war, of 2,100 persons 1,500 were found to be sincere objectors and recommended for farm or industrial furloughs, 219 were found to be sincere objectors to combatant but insincere as to non-combatant service, 156 were found to be sincere objectors of combatant but willing to

(Continued on page 51)

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OBJECTORS (Continued)

accept noncombatant service, 15 were found to be sincere objectors to combatant service but willing to work in reconstruction hospitals and 122 were found to be insincere as to both combatant and noncombatant service.

"In this war many of our conscientious objectors are young men of good education, often of good family training. No doubt the same proportions prevail in relation to religious and political objectors as in previous wars. Fortunately the problem was given attention early by the Selective Service Administration, so that today many of these boys are engaged in occupations in the field of medicine, in hospitals and in similar activities, where they are rendering a genuine service to the war effort. A number have volunteered to serve as subjects for important experiments in testing the value of life saving technics in the service to be given to our troops in China and in the South Pacific. There are functions which the conscientious objectors can perform and for which many of them have already volunteered without demanding participation in combat."

ANY PHYSICIAN MAY EXHIBIT "WHEN BOBBY GOES TO SCHOOL" TO THE PUBLIC

Under the rules laid down by the American Academy of Pediatrics, their educational-to-the public film, "When Bobby Goes to School," may be exhibited to the public by any licensed physician in the United States.

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"When Bobby Goes to School" is a 16-mm. sound film, free from advertising, dealing with the health appraisal of the school child, and may be borrowed without charge or obligation on application to the distributor, Mead Johnson & Company, Evansville, Indiana.

HEALTH TESTS FOR DOMESTICS

Physicians have so many extra jobs on their hands as a result of the war that one hesitates to add to the list of "musts" and "shoulds." Nevertheless, the Committee on Health Tests for Household Workers deserves a helping hand from the profession.

Many pediatricians have had the experience of tracing tuberculosis and, more rarely, syphilis in one of their child-patients to a domestic employee. The Bureau of Part-Time Work organized its Committee on Health Tests because of demonstrated contagion from this source.

There are many difficulties in the way of universal examination of household workers. Some employees protest that it is a discriminatory requirement, asked of no other class of workers. Some employers complain of the expense. Neither obstacle is insuperable, as the steady progress of the idea in New York and its spread to other cities show.

It is true that a health certificate, based on a physical examination, an x-ray of the chest, and a blood test, is not a usual requirement in industry. On the other hand, industrial contacts are not so close or intimate as those between children and the servants employed in their home. Authenticated cases of tuberculosis and other infectious diseases from contacts with household workers are too numerous to be dismissed as "the odd chance."

The committee has made a good start toward solving the problem of expense. For housewives who cannot afford the usual examination fees, the Murray Hill Health Service provides a complete physical inspection, including an x-ray of the lungs and a Wassermann test, at a cost of five dollars. Group tests are given at a cheaper rate.

Obviously, periodic examinations of household workers will not prevent all infections from this source, but they will materially diminish them. Nevertheless, whether from custom or inertia, most housewives make no inquiry into the physical status of applicants for domestic employment. Physicians can and should help to overcome this dangerous complacency by pointing out the health hazards, particularly to children of daily close association with a person having active tuberculosis, syphilis, or other infectious disease. — *Journal of Medical Society of County of New York.*

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SAYS ILL EFFECTS NEED NOT BE EXPECTED FROM BLOOD DONATIONS BY WAR WORKERS

Industry need not be concerned about the blood donations on the part of war workers having any effect on absenteeism or lowered production, *The Journal of the American Medical Association* for May 15 explains. *The Journal* says:

"Industrial concerns recently have been apprehensive about the effect of blood donations on war workers. A number of medical consultants to the Industrial Hygiene Foundation have concluded that ill effects need not be expected if standard procedure is followed closely. Although there may be some temporary lassitude on the part of indoor sedentary workers, eligible donors are not as a rule made weaker nor is there greater susceptibility to upper respiratory infections or other complications in the immediate period following the donation. It was the consensus that industry need not be concerned about the matter from the point of view of absenteeism or lowered production."

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TRAINING

Browsing through Mark Twain the other evening we were struck by the analogy between the training of a river pilot and that of the surgeon. Remember in *Life on the Mississippi,* Clemens' discussing the pilot?

It goes like this: "A pilot must have memory; but there are two higher qualities which he must also have. He must have good and quick judgment and decision, and a cool, calm courage that no peril can shake. Give a man the merest trifle of pluck to start with, and by the time he has become a pilot he cannot be unmanned by any danger a steamboat can get into; but one cannot quite say the same for judgment. Judgment is a matter of brains, and a man must *start* with a good stock of that article or he will never succeed as a pilot.

"The growth of courage in the pilot-house is steady all the time, but it does not reach a high and satisfactory condition until some time after the young pilot has been 'standing his own watch' alone and under the staggering weight of all the responsibilities connected with the position. When the apprentice has become pretty thoroughly acquainted with the river, he goes clattering along so fearlessly with his steamboat, night or day, that he presently begins to imagine that it is *his* courage that animates him; but the first time the pilot steps out and leaves him to his own devices he finds out it was the other man's. He discovers that the article has been left out of his own cargo altogether. The whole river is bristling with exigencies in a moment; he is not prepared for them; he does not know how to meet them; all his knowledge forsakes him; and within fifteen minutes he is as white as a sheet and scared almost to death. Therefore pilots wisely train these cubs by various strategic tricks to look danger in the face a little more calmly."

Substitute surgeon for pilot; operating-room for pilot-house; operation for river; instruments for steamboat; and you have what we mean. The likeness can be applied to any highly trained specialist who must accept grave responsibilities. It applies to industry as well as to the professions.

The anxiousness of the novice to jump into deep water might well be somewhat curbed by a full reading of *Life on the Mississippi.* The "old salt," too, would be amused by a rereading of Mark Twain's homely philosophy and native humor. — *The Bulletin, Onondaga County*

SHORT BLACKOUT

A sorrowing widow, having a memorial erected in memory of her late husband, had the following inscription carved on it:

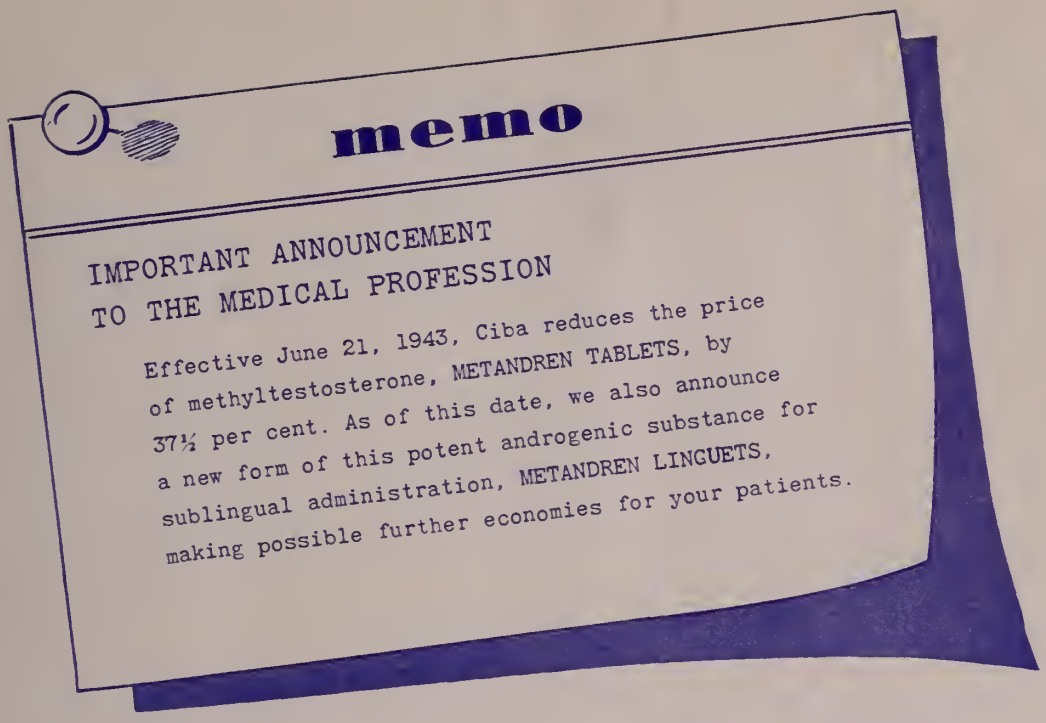
"Good-bye, Henry, my light has gone out."

Three months later when she remarried, some wit added to the inscription:

"But I have struck another match."

— *Milwaukee Medical Times*

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The ILLINOIS Medical Journal

VOL. 84 NO. 2

August, 1943

In This Issue

The Treatment of Burns

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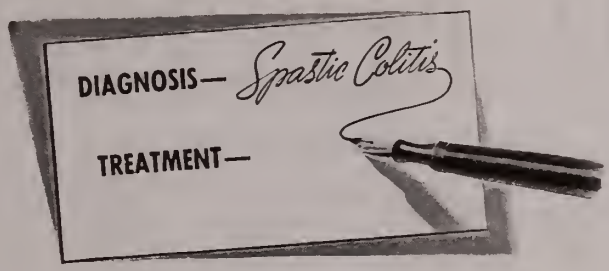


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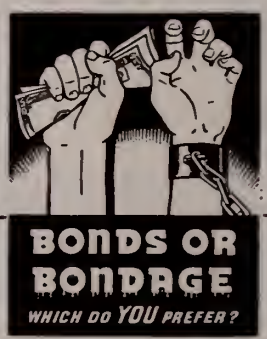
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Farley, R. T., Spierling, H. F. and Kraines, S. H.: A Five-Year Study of Arthritic Patients, Indus. Med., 10:341-352, (August), 1941.

Wolf, I. J.: Treatment of Rickets with a Single Massive Dose of Vitamin D, Jl. Med. Soc. of N. J., 38:436, (September), 1941.

Krafka, J.: Vitamin D Therapy in Psoriasis, Jl. Med. Assn. of Ga., 30:398-400, (September), 1941.

Snyder, R. G. and Squires, W. H.: Follow-up Study of Arthritic Patients Treated with Activated Vaporized Sterol, N. Y. St. Jl. Med., 41:2332-2335, (December 1), 1941.

Snyder, R. G., Squires, W. H., Forster, J. W., Traeger, C. H. and Wagner, L. C.: Treatment of 200 Cases of Chronic Arthritis with Electrically Activated Vaporized Sterol (Ertron), Indus. Med., 11:295-316, (July), 1942.

Steck, I. E.: Further Clinical Experience in the Treatment of Arthritis with Vitamin D, Ohio St. Med. Jl., 38:440-443, (May), 1942.

Reynolds, C.: Comparative Therapeutic Value and Toxicity of Various Types of Vitamin D, Journal-Lancet, 62:372-375, (October), 1942.

Levinthal, D. H. and Logan, C. E.: The Orthopedic and Medical Management of Arthritis, Journal-Lancet, 63:48-50, (February), 1943.

Snyder, R. G., Squires, W. H. and Forster, J. W.: A Six-Year Study of Arthritis Therapy, Ind. Med., 12:291-297, (May), 1943.

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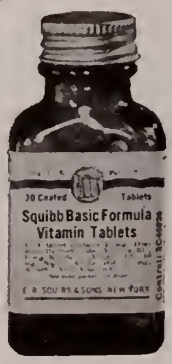


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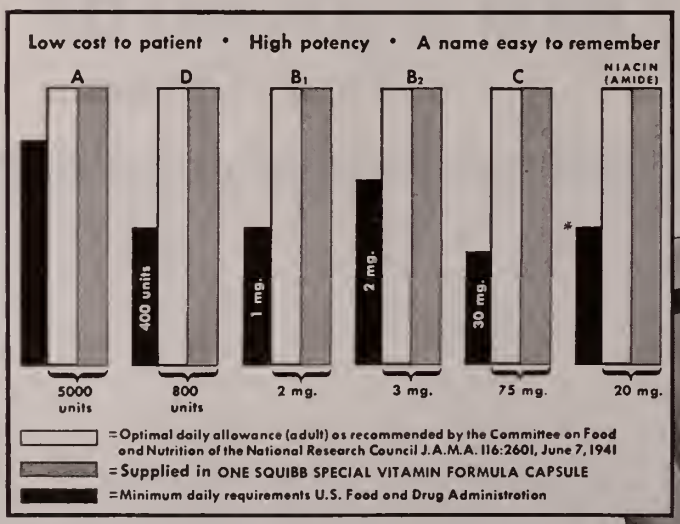
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[1] Spies, T. D.: *M. Clin. North America* 27:273, March 1943.
[2] Jolliffe, N., and Smith, James J.: *M. Clin. North America* 27:567, March 1943.
[3] Spies, T. D.: *J. A. M. A.* 122:497, June 19, 1943.

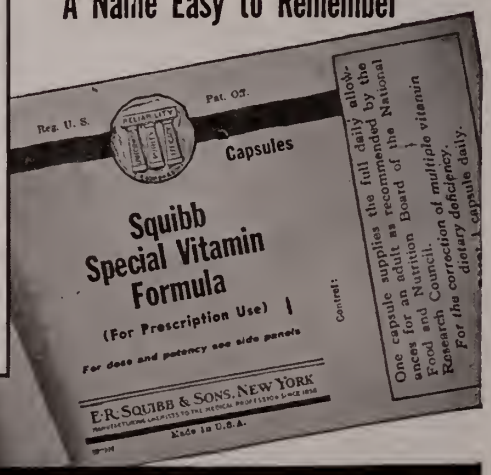
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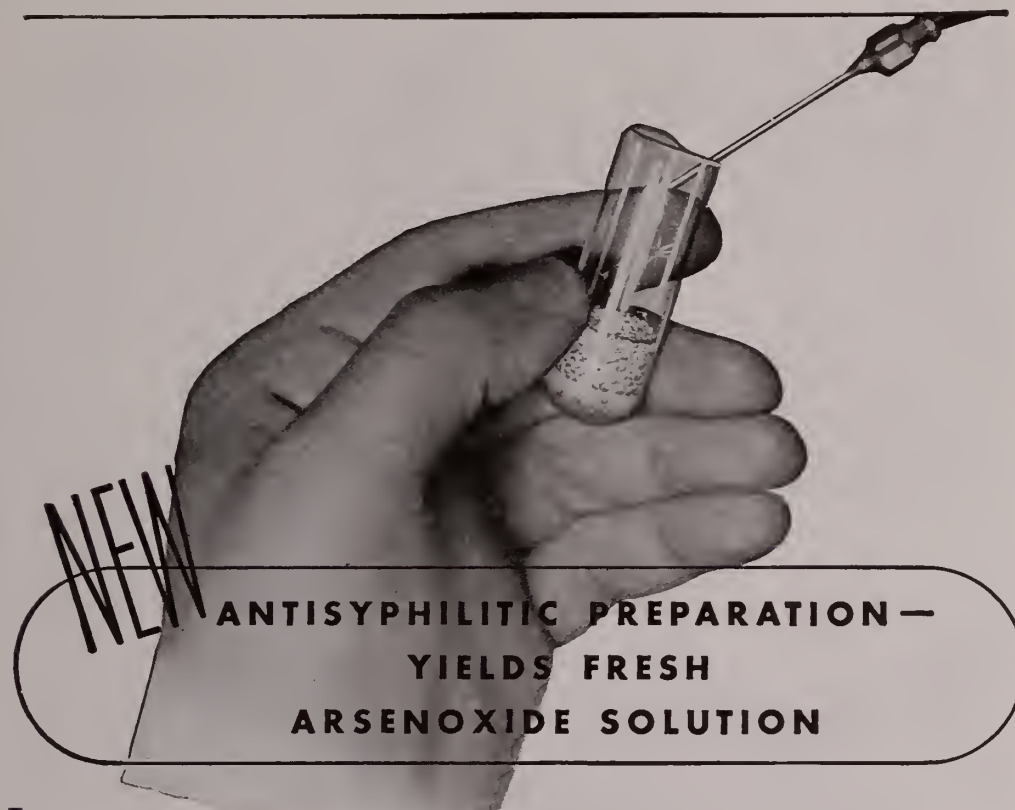


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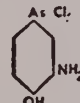
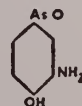
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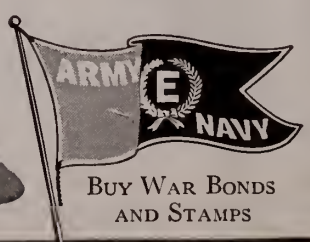
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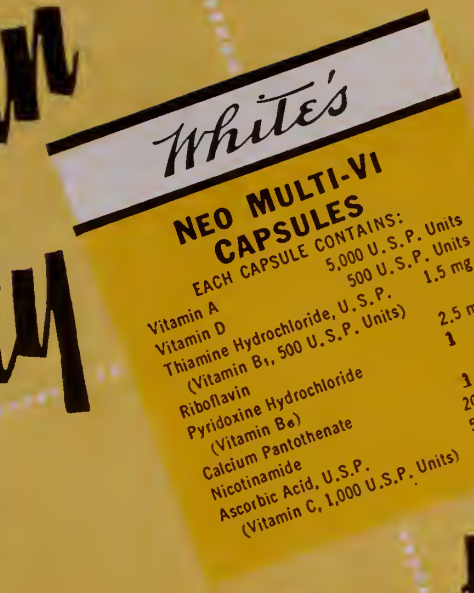




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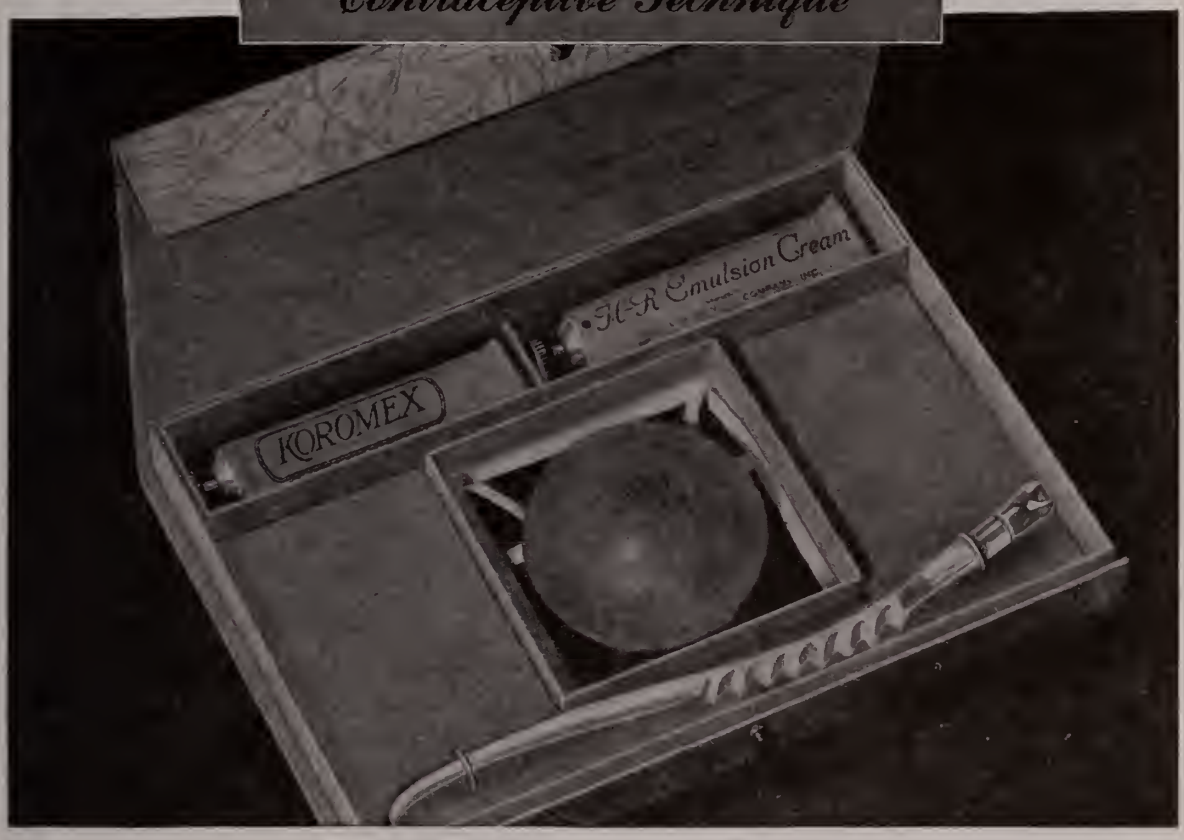
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Editorials

THE PREPARATION OF FOOD

Nutrition is the sum total of those processes by which the living organism receives and utilizes the materials necessary for the maintenance of life.[1] A foodstuff is a material which is capable of being added to the body substance or which when absorbed into the blood stream, will prevent or reduce the wasting of a necessary constituent of the organism.[2] In the human family these essential substances are water, inorganic salts, organic foodstuffs and those substances which are now termed vitamins.

Prior to the present world war the American people were not restrained in any sense of the word to the types and amount of food they could procure in the various markets. Meat was not restricted and the meat lover could buy to his heart's content. The only limitation to his purchases was the state of his pocketbook. The producer could use whatever part of his many products he desired, and could dispose of his surplus as he saw fit. Food faddists rarely had any trouble buying the type and quantity of food they desired, and those in low income groups were usually able to buy lower priced products at their favorite markets.

Today, more than ever before in the history of our country, everyone regardless of age, physical or economic condition, is limited under the nation-wide rationing programs. Consequently it is highly essential today that the American people learn more concerning not only the essentials of a well balanced diet, but also the methods by which food may be preserved and prepared for use with the utilization of some of the newer methods of preserving.

More care should be taken in the preparation and cooking of certain types of fruits and vegetables to retain to the greatest extent possible the vitaminic and other nutritive elements therein contained. It has been known for a long time that the outer jackets of many vegetables, as well as the skins of many fruits are high in nutritive value. Cooking vegetables without removing some of these structures protects the vitamin content. This is true with the potato where the skins are not only high in nutritive elements, but also protect other essential food elements as well as retain the flavor to the best advantage.

Careful attention should be given to the preparation of fruits to retain the fullest nutritional value. It is a well known fact that straining such fruits as those in the citrus group and discarding the pulp, loses much of the food value. It is probably true that the average individual eats more food than is actually required by the body, and with more consideration to the caloric value of food and a fairly accurate determination of the calories needed, it is possible to "spare the points" under the rationing system.

Housewives are urged to increase their home canning and much information is given from

1. McLester, J. S., "Nutrition nnd Diet in Health & Disease" 1943.
2. Lusk, Graham.

various departments in Washington, as well as by home economic services available in most communities today. A considerable amount of attention is being paid likewise to the modern methods of dehydration of food, to preserve it more satisfactorily with less bulk and requiring only the replacement of the fluid loss when it is being prepared. Dehydration must be carefully and skillfully done, and perhaps with more experience, there will be a minimum loss of vitaminic content. However, it is stated that vitamin A is lost through dehydration unless the vegetable is heated rapidly before dehydration is done, or if it is dehydrated in the absence of oxygen. This, it is stated, inactivates a destructive enzyme.

When properly done by an experienced worker, the freezing of fruits and vegetables and keeping them frozen, retains most of the nutritive elements. Frozen beef, fish, fowls and game have been kept over long periods of time in modern freezing units. These are, or have been until the war came to America, available for even home use. In many cities and towns cooperative locker services, or others for rental, have been generally available. Warnings have been issued however that food so frozen should not be permitted to thaw then be refrozen, as this will affect the nutritive value and there is liable to be a definite loss of essential food elements if this is permitted.

The rather general use of pressure cookers has likewise taught the modern housewife much along the line of cooking fruits and vegetables, as well as some meats, to retain the highest nutritive value.

There are many documents relative to the preparation and preservation of foods which are available from Washington. They may be procured by anyone by writing the Superintendent of Documents, Washington, D. C., and will be sent for a small sum, usually either five or ten cents, to barely cover the cost of publishing and delivery of the bulletin.

Although much information has been available on the subject of nutrition and the preparation

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of foods for many years, it has been only recently that there has been a general demand for complete information by many housewives and others who desire, as part of their contribution to the war effort, to conserve foods to make more available for war and other essential purposes. It is quite likely that through paying more attention to the actual requirements of the human body, and regulating the average diet to the law of supply and demand, with more consideration for availability of foods, we will become a healthier nation.

More consideration to the nutritional elements contained in present day available foods will add much to the health of people in general. Tables are accessible to all, which give not only the caloric value of the many types of food, but also in a general way, their vitaminic content. It is generally believed today that the average individual in health who eats a well balanced diet does not need additional concentrated vitamin products. Many elaborate claims are being made through the press, the mail and over the air for certain vitamin tablets or pills, and giving the general impression that to maintain health and receive maximum assurance that the individual will not have colds and other frequently seen disorders, all they need to do is to take one or more vitamin pills daily, giving them to all members of the family, and they may be reasonably secure.

That there are occasional cases of avitaminoses no one denies, yet it seems absurd for one to believe they must take a certain remedy or be in greater danger than others of having various ailments. With ever increasing demands on the part of many people today for information on food, its caloric value and vitaminic content, and also for methods of preparing and preserving foods safely for future use, it seems quite probable that the average individual will learn that the majority of disturbance due to lack of essential vitamins may be alleviated through an increase in certain food elements which have been deficient in the past.

The last word on this subject has not yet been said, and with the thousands of research workers constantly endeavoring to bring more light on the subject of nutrition and diet, as well as the role of diet in many deficiency diseases, it seems quite probable that after all, as has been the case following all other wars, some good will come from the present conflict which will add materially to the health of the nation, and be at least partly responsible for further improvements in mortality and morbidity statistics.

THE PREVALENCE OF ACCIDENTS

An interesting article was recently published in the Statistical Bulletin published by the Metropolitan Life Insurance Company (June, 1943) entitled "Accidents kill more workers off the job than on the job. According to the article, at least three workers are killed in "off the job" accidents for every two that are fatally injured while on the job.

With the present consideration being given to manpower, and the apparent shortage in this as well as all other countries which are at war, it is highly important that more attention than ever before be given to the prevention of accidents. Much thought has been given to the care of workers and every effort is being made to minimize accidents through educational campaigns, installation of safety devices and in many other ways, as well as having within most plants, a well organized medical corps with physicians on duty constantly.

Yet with accidents still quite prevalent among workers while off the job, there has been but little organized effort to minimize these casualties. We are informed that the ratio of workers killed off the job to those killed in industrial service is more than three to two. Even though speed has been reduced on the highways the automobile still accounts for many of these deaths, along with cases of drowning, shooting, electrocutions, machinery, and many other types of accidents.

In the report it was stated that machinist had five times as many mishaps off the job than while on duty; farmers and farm laborers 3½ times as many and mechanics, carpenters, steel and iron workers had twice as many accidents. Electricians and welders likewise had more accidents off the job than while doing their regular work, and theirs are generally considered to be more than the usual hazardous occupations.

With the present day efforts to minimize occupational accidents as an aid in the conservation of manpower it seems most desirable that

efforts be made likewise in the interest of the war effort, to stimulate the interests of workers in matters of personal, off the job, safety. These accidents are also a serious menace to the workers and their families as they are not ordinarily compensable as are the casualties while on the job. From available statistics, and when one considers the fact that many workers are accepted today for employment in factories who have been rejected for service, many who are aged as well as the unusually young, it is most creditable to the American effort to find a surprisingly low industrial casualty rate, and with additional educational campaigns to promote off the job safety, and the assumption of greater care on the part of the individuals, these casualties should likewise be materially reduced.

NEW POSTAL REGULATION

A new postal regulation was announced recently in which the addition of local postal zones to the addresses of individuals in some 178 large cities of the country should be made. It is stated that under this provision when the postal zone is added to the regular mailing address, the number of hours consumed in post offices in sorting and routing outgoing mail will be greatly reduced. Likewise it is thought that this procedure will expedite the delivery of mail.

As we understand it, the plan right now is not compulsory but it is likely that it will become so in the future. It will lessen the burden of the overworked postal employees materially, as they too are shorthanded at the present time. In larger cities under this new procedure mail will go directly to the proper substation for delivery by letter carrier.

Eventually mailing lists of periodicals will be revised and will contain the proper zone number for subscribers in the cities where the zoning procedure is necessary. In view of the fact that at present many publications such as the Illinois Medical Journal do not have the proper zoning information, we will greatly appreciate it if all subscribers will notify us at their earliest convenience of the zone which should be included on their correct address.

According to information just received by the editor, the following Illinois cities are on the list for which the new postal unit numbering method is required: Chicago, Peoria, Rockford, Bloomington and Decatur. It is possible that other cities in Illinois will be added in the near future. It will be a great help if physicians in these cities of Illinois (and of course those receiving this Journal in other states where the new regulation applies) will send to the Managing Editor, Illinois Medical Journal, 30 North Michigan Avenue, Chicago, the proper unit number to be added to their address.

INFECTIOUS ECZEMATOID DERMATITIS

This condition, often secondary to some infected wound on the lower extremities, is one that occurs quite frequently in those employed in the building industries. I find that, almost uniformly, the application of any salve (including the current favorite, sulfathiazole) tends to make the condition worse. In fact, I believe that it seals up the exudate, always present, and "forces" the absorption of bacteria and their products into the blood stream, with the production of new lesions at sites far removed from the injury. Patients often remark, "I put a salve on the sore, and it spread all over." Only the relatively innocuous nature of the invading organisms saves the patient from a speedy demise.

Application of wet dressings of potassium permanganate (1-3,000) and the use of the same medicament in a bath (1-30,000) is a very efficient measure. It seems to me that the skin returns to normal more quickly after the use of potassium permanganate than after using other remedies which may be more bactericidal (aluminum subacetate, mercuric chloride). I agree with the current dermatologic opinion that there is little to be gained by administration of the sulfonamide drugs in nonfebrile conditions; that more harm than good may come of it. — Thomas S. Saunders, M.D., Portland, Ore., Northwest Med., Vol. 42, No. 5, May, 1943.

Here's a thought for the day, culled from *Insect Invaders,* by Anthony Standen. If Mr. and Mrs. House Fly get married in April, by August they may look forward to 191,010,000,000,000,000,000 descendants. — *Book-of-the-Month Club News.*

Correspondence

FOUR MORE DISEASES MADE REPORTABLE IN ILLINOIS

ROLAND R. CROSS, M. D.
DIRECTOR, ILLINOIS DEPT. OF PUBLIC HEALTH

Amending the "MANUAL AND OUTLINE OF PROCEDURE FOR HEALTH OFFICERS FOR THE CONTROL OF COMMUNICABLE DISEASES, Revised and in Force Throughout Illinois, October 1, 1941," as follows:

Page 33: Amending the list of Notifiable Diseases to include "Hepatitis, Infectious (Acute Catarrhal Jaundice)" to be inserted following "No. 21, Hemolytic Streptococcus Sore Throat."

"Jaundice, Hemorrhagic (Spirochetosis Icterohemorrhagic, Weil's Disease)" and "Kerato-Conjunctivitis, Infectious (Superficial Punctate Keratitis: Nummular Keratitis)" are to be inserted following "No. 23, Influenza."

"Rheumatic Fever, Acute" is to be inserted following "No. 40, Rabies."

Page 72: Following "Hemolytic Streptococcus Sore Throat", the following rules and regulations for the control of "Hepatitis, Infectious (Acute Catarrhal Jaundice)", "Jaundice, Hemorrhagic (Spirochetosis Icterohemorrhagic, Weil's Disease)", and "Kerato-Conjunctivitis, Infectious, (Superficial Punctate Keratitis: Nummular Keratitis)" are to be inserted:

"HEPATITIS, INFECTIOUS (ACUTE CATARRHAL JAUNDICE)

"1. *Recognition of the disease.* — An acute infection characterized by a prodromal period of from less than a day to about a week, following which jaundice of more or less severity occurs. The prodromal symptoms include headache, abdominal pain, malaise, anorexia, nausea, and vomiting. Fever is usually present although it may be so slight as to be missed. Toward the end o fthis period, bile may be detected in the urine, and jaundice of minimal to marked intensity is soon noted, persisting for days or weeks. A leukopenia with relative lymphocytosis may be present. Convalescence is of variable length. There is considerable variation in the degree of severity of the disease, ranging from anicteric cases to cases of acute yellow atrophy of the liver. A similar clinical picture has been observed following certain industrial intoxications, antisyphilitic treatment, and several immunization procedures, but the relation of these clinical conditions to infectious hepatitis has not been determined.

"2. *Etiological agent.* — Unknown

"3. *Source of infection.* — Probably discharges from the nose and mouth of infected individuals. There may be carriers.

"4. *Mode of transmission.* — Presumably through direct contact with infected persons and carriers of the disease. Alimentary infection may be a factor but the evidence in this direction is scanty.

"5. *Incubation period.* — Usually from 21 to 35 days.

"6. *Period of communicability.* — Relatively short. About 1 week and apparently not more than 2 weeks.

"7. *Susceptibility and immunity.* — Most common among children. Cases have been observed among individuals of all age groups. The disease is, in most instances, of longer duration and greater severity among adults than among children. Second attacks have been rare, relapses uncommon.

"8. *Prevalence.* — Epidemics are most commonly reported from rural areas and from institutions. Most outbreaks begin during the fall and winter months.

"9. *Methods of control*:

A. The infected individuals, contacts, and environment.

1. Recognition of the disease and reporting: By clinical symptoms.

2. Isolation: During the first week of illness.

3. Concurrent disinfection: Discharges of nose and throat of patient.

4. Terminal disinfection: None

5. Quarantine: None

6. Immunization: None

7. Investigation of source of infection. Desirable to detect and isolate other cases.

B. General measures:

Physicians of the vicinity should be informed when this disease is prevalent.

"JAUNDICE, HEMORRHAGIC

(Spirochetosis Icterohemorrhagic, Weil's Disease)

"1. *Recognition of the disease.* — An acute infection characterized by malaise, prostration, gastrointestinal symptoms, muscular pains, and fever at the onset, followed by defervescence, jaundice, and signs of nitrogen retention, of varying degree and duration. Relapses may occur. Severe cases develop hemorrhages at various sites and renal damage may be marked. About 50 percent of cases are without jaundice. Isolation of *Leptospira icterohaemorrhagiae* or *L. canicola* by inoculation of guinea pigs with the blood early in the course of the disease, or with the urine later, definitely identifies the condition. Positive serological tests strongly indicate the Presence of Weil's Disease.

"2. *Etiological Agent.* — *Leptospira icterohaemorrhagiae* found in the blood or urine of patients and in the renal tract of rats. *L. canicola* primarily a spirochete of dogs, is found in some human cases.

"3. *Source of Infection.* — Urine of rats and dogs. Contaminated water and food stuffs are important. Foxes, sheep, cats, and mice are at times involved.

"4. *Mode of transmission.* — It appears that ingestion of contaminated food and water plays a role and that continued exposure of abraded or unabraded skin to alkaline waters containing the *Leptospirae* may lead to infection. Sewer workers, fish workers, coal miners, and veterinarians are especially exposed to infection.

"5. *Incubation period.* — Four to 19 days, average 9 to 10 days.

"6. *Period of communicability.* — The urine of patients continues to contain organisms for weeks or months following convalescence. Only one human case has been traced to direct contact. Ten to 50 percent of wild rats harbor *Leptospirae* in their kidneys. They are persistent carriers.

"7. *Susceptibility and immunity.* — Susceptibility is general. Natural immunity does not exist and artificial undemnity is still questionable. A refractory state develops following recovery, and immune bodies may be detected for a considerable period thereafter.

"8. *Prevalence.* — The disease is present in rats over the entire world. Dogs are also infected to a considerable degree. Man develops the disease when conditions are such as to allow unusually close contact between man and rats or dogs. Sporadic human cases have been reported from widely distributed cities in the United States.

"9. *Methods of control*:

A. The infected individual, contacts, and environment:

1. Recognition of the disease and reporting: Characteristic clinical symptoms, isolation of the organism from the blood or urine, and positive serological tests.

2. Isolation: None

3. Concurrent disinfection: Urine and other discharges of patient.

4. Terminal disinfection: None

5. Quarantine: None

6. Immunization: None practical

7. Investigation of source of infection: Search for rats or dogs harboring the *Leptospirae* and for source of food or water to which such animals have access, e.g., communal baths, fish-cleaning establishments, mines, sewers, etc.

B. General measures:

1. Rat control by ratproofing, trapping, and poisonings.

2. Sanitary disposal of human wastes in civil and military environment.

3. Destruction of Leptospirae in nature by drainage of mines and soil, and disinfection of water in fish-cleaning establishments with 1:60 hypochlorite solution.

4. Education in the value of proper disposal of water, storing and keeping foods, and other general sanitary measures.

5. Protection of workers exposed to infection by preventing organisms from entering through the skin and mouth by the use of boots, gloves, avoidance of skin abrasions, etc.

"KERATO-CONJUNCTIVITIS, INFECTIOUS

(Superficial Punctate Keratitis: Nummular Keratitis)

"1. *Recognition of the disease.* — Acute onset usually with sensation as of foreign body under the upper lid. Edema of lids, scleral injection, follicular hypertrophy of palpebral conjunctiva, enlargement and tenderness of pre-auricular lymph node with a watery discharge, followed in few or many of the cases by multiple pin-point corneal opacities. Involvement usually unilateral.

"2. *Etiological agent.* — Considered to be a specific filterable virus.

"3. *Source of infection.* — Probably the discharge from the eye of an infected person or a carrier.

"4. *Mode of transmission.* — Apparently contact with an infected person or carrier or with articles freshly soiled with discharges of such person.

"5. *Incubation period.* — Not definitely established but probably about 5 days.

"6. *Period of communicability.* — Unknown but certainly during acute state of the disease.

"7. *Susceptibility and immunity.* — Susceptibility variable. No age, sex, or race known to be immune.

"8. *Prevalence.* — Occurs in epidemic form in warm climates, also among industrial employees in temperate climates, involving a small percentage of the individuals in the groups affected.

"9. *Methods of control:*

A. The infected individual contacts and environment:

1. Recognition of the disease: Clinical course confirmed by smears of conjunctival scrapings showing mononuclear cells and none of the usual

etiologic agents of other forms of conjunctivitis.

2. Isolation: None, provided hygienic measures are taken by the infected person.

3. Concurrent disinfection: Disinfection or destruction of conjunctival and nasal discharges and articles soiled therewith.

4. Terminal disinfection: None.

5. Quarantine: None.

6. Immunization: None.

7. Investigation of source of infection: To locate other cases and institute precautions at home or working place.

B. General measures:

1. Education as to personal cleanliness and as to danger of use of common towels and toilet articles.

2. Avoidance of contact of hands with conjunctival or nasal discharges."

Page 105: Rule 2, under "Control of Contacts to Carriers," is to be deleted entirely, and the following paragraph is to be substituted.

"A person living on premises with a typhoid carrier, who has been granted modified quarantine, shall not be permitted to handle food unless he has received a standard course of injections against typhoid and paratyphoid, which consists of three doses of typhoid and para-typhoid vaccine, ½ c.c., 1 c.c., and 1 c.c. Annually, thereafter, he shall receive a dose of ½ c.c., of triple typhoid vaccine subcutaneously, so as to bring up his immunity to a protective level. Before being permitted to return to his occupation, he shall submit four successive, negative specimens of feces and urine not earlier than 48 hours apart — specimens to be collected from second and third bowel movements after a cathartic has been given. No negative reports will be considered if specimen has been in transit more than 24 hours."

STATE OF ILLINOIS)
) SS
COUNTY OF SANGAMON)

I, Roland R. Cross, M.D., Director of the Department of Public Health, State of Illinois, do hereby certify that the foregoing rules as amending the "MANUAL AND OUTLINE OF PROCEDURE FOR HEALTH OFFICERS FOR THE CONTROL OF COMMUNICABLE DISEASES, Revised and in force on and after October 1, 1941, throughout Illinois," as herein set forth, are true and correct copy of rules promulgated by the Department of Public Health effective on and after the 15th day of May, 1943.

IN WITNESS WHEREOF, I hereunto set my hand and Official Seal of the Department of Public Health of the State of Illinois, this 15th day of May, 1943.

(signed) Roland R. Cross
_____ M.D.
DIRECTOR OF PUBLIC HEALTH

NURSING DIVISION

The Nursing Supply and Distribution Unit of the War Manpower Commission has been made the Nursing Division of the Commission's Procurement and Assignment Service, Paul V. McNutt, Chairman of the Commission, announced July 27.

"The objectives of the Nursing Division," Mr. McNutt explained, "are the same as those divisions of the Procurement and Assignment Service now dealing with the dentist, veterinary, physician, and sanitary engineer for their professions. They involve the recruitment of sufficient nurses to meet the needs of the Armed Forces and the provision of minimum adequate nursing care for the civilian population, nonmilitary governmental agencies, and industry."

Recommendations regarding the operation of the nursing division will be made to the Directing Board of Procurement and Assignment Service, headed by Dr. Frank H. Lahey, of Boston, by a Nursing Advisory Committee. The Nursing Division is represented on all the present advisory committees to the Directing Board that are concerned with problems that affect nurses. Miss Katherine Tucker, Philadelphia, Pa., and Miss Laura Grant, New Haven, Conn., have been appointed to the Directing Board.

Miss L. Louise Baker has been named an Assistant Executive Officer of the Procurement and Assignment Service, to work under the general direction of the Directing Board and Dr. Maxwell Lapham, Executive Officer. She will have the responsibility of carrying out the functions of the Nursing Division and will be assisted by Miss Ruth A. Heintzelman. The already existing technical, clerical and statistical sections of the Central Office of Procurement and Assignment Service will be utilized and four nurse consultants will be added to the staff to supervise the work in the field.

The activities of the Nursing Division in the field will be carried out by separate State and local committees. The Supply and Distribution Committee of the State Nursing Councils for War Service, representing the various nursing organizations in each State and serving without compensation, will act as the State Committee for Nurses for the Procurement and Assignment Service and the Local Nursing Council for War Service will act as the local committee in each

community. Both State and Local Committees will function independently of but in cooperation with the State Committees for Physicians of the Procurement and Assignment Service.

CIVIL SERVICE EXAMINATIONS ANNOUNCED FOR MEDICAL GUARD-ATTENDANTS AND MEDICAL TECHNICAL ASSISTANTS

The Civil Service Commission has announced an examination to secure Medical Guard-Attendants and Medical Technical Assistants for the U. S. Public Health Service.

Applicants for *Medical Guard-Attendant* positions which pay $1,970 (counting overtime compensation) a year must be registered graduate nurses, or have had at least 3 years' service in the Medical Corps of the Army or Navy, or have had 18 months' service as hospital attendant-guards in any one of the Department of Justice penal or correctional institutions; in the Medical Center for Federal Prisoners, Springfield, Missouri; or in the U. S. Public Health Service Hospital at Lexington, Kentucky or at Fort Worth, Texas.

It is desirable that applicants should have had satisfactory experience as guards in penal or correctional institutions, as soldiers, sailors, or marines, or as hospital or asylum attendants.

Applicants for the *Technical Assistant* positions which pay $2,433 a year (counting overtime compensation) must possess the qualifications for Medical Guard-Attendant and in addition must have had 1 year of training or experience in one of the following options: Clinical Laboratory Technique, Pharmacy, or X-ray Laboratory Technique.

Applicants must have reached their twenty-first birthday. There is no maximum age limit. No written test is required. Persons now using their highest skills in war work should not apply. Appointments in Federal positions are made in accordance with War Manpower Commission policies and employment stabilization plans.

Persons who received eligible ratings under the examination announced for these positions in July, 1941, need not apply again.

Further information and application forms may be obtained at first- or second-class post offices, Civil Service Regional Offices, and the Commission in Washington, D. C.

MEDICAL OFFICERS NEEDED FOR FEDERAL CIVILIAN WAR SERVICE

The critical shortage of physicians to engage in vital war work in the civilian branches of the Government continues. The great need for these men resulted in the announcing of a liberalized civil-service examination for Medical Officers in 1941. The Civil Service Commission has just revised and re-announced this examination.

The twenty optional branches under which doctors may apply range from General Practice to Aviation Medicine. Those appointed will perform professional duties as doctors of medicine in active practice in hospitals, in dispensaries, in the field or in rural areas; or in bureaus of the Government such as the Veterans Administration, Civil Aeronautics Administration, Public Health Service, and Food and Drug Administration. Doctors will also be used in industrial establishments under direction of the War Department.

Applicants for all grades must have received the degree of M.D. from an accredited medical school. Applicants for the Senior Medical Officer grade ($5,228 a year) must have had at least 5 years of appropriate medical experience; for the Medical Officer grade ($4,428 a year), 3 years of experience in addition to a required interneship; and for the Associate Medical Officer grade ($3,828) 1 year of interneship. The salaries quoted include overtime pay.

There are no written tests and no age limits. Persons now using their highest skills in war work should not apply for these positions. Appointments in Federal positions are made in accordance with War Manpower policies and employment stabilization plans. Before a definite offer of appointment is made, eligibles are cleared through the Procurement and Assignment Service for Physicians, Dentists, and Veterinarians, of the War Manpower Commission.

Persons rated eligible on the Medical Officer examination of 1941 need not file applications again unless they consider that they now possess qualifications for eligibility in a higher grade or different option.

Further information and application forms may be obtained at first- and second-class post offices, Civil Service Regional Offices, and the Commission in Washington, D. C.

Medical Economics

Edited by R. K. Packard, M.D., Chairman of the Committee on Medical Economics of the Illinois State Medical Society, 826 East 61st Street, Chicago, Illinois.

At the annual meeting of the American Medical Association three very important addresses were made, namely, by the Speaker of the House, Dr. H. H. Shoulders, President Brig. Gen. Fred W. Rankin, and President-Elect Dr. James E. Paullin.

I think it might be well to review very briefly some of the statements made. It seems to the writer that the address of the Speaker of the House was the most outstanding because he made a very definite plea for medical statesmanship. The following is a quotation: "I use the word 'statesman' in this connection as embracing all the attributes which distinguish a statesman from a politician, such qualities, for example, as broad knowledge, wisdom, vision, courage and loyalty to high principles. The politician, in the commonly accepted meaning of the term, possesses and exercises skill in the conduct of manipulations to accomplish his purposes without too much regard for their ultimate effects." He went on to state that American medicine has been blessed through the years by the benefits of a high order of medical statesmanship. The writer generally agrees with this, but not whole heartedly, because there are without question examples of men who have held high offices in American medicine, and who had none of the attributes of statesmanship that the Speaker of the House alluded to. It seems evident that the social economic changes that have taken place in the last twenty-five years are not generally accepted by the profession until they are forced to accept them. Perhaps, the most striking of these is group hospitalization. Group hospitalization was almost universally opposed by the medical profession on the theory that it would create a stepping stone or tendencies toward state medicine; it is generally accepted now that the opposite is true. There are other examples of men holding high positions in American medicine who when called upon to deliver opinions are found entirely wanting in the knowledge of the subject at hand. It was apparent that these men must have received their offices through politics and not medical statesmanship.

After listening to the address of the President and re-reading his address one begins to think seriously of the factor of heredity and environment. The writer has always thought of the President as a rugged individualist, and wonders if his associations in Washington have changed his thoughts and opinions, and if this is a direct result of environment with the New Dealers. The following is a quotation from the President's address: "It must now be apparent, even to those who have been most purblindly recalcitrant, that mighty influences set at work to effect epochal changes in the complexion of medical practice. While it would appear that these influences have suddenly loomed on the medical scene, it should be realized that they have long been forming and that the present military conflict has merely hurried their development and magnified their significance. That they can no longer be ignored seems difficult to controvert. We must face realistically these tremendously forceful socioeconomic trends which are intimately involved and deeply concerned with the nation's medical problems. The directional sign posts of postwar planning may

now be clearly read by proposals already made for broadening the social security program and extending the nation's economic resources to assure 'adequate medical and health care for all, regardless of place of residence or income status.' The complex connotations and inevitable implications of these plans and proposals make it quite apparent that the old system of medical practice will be considerably modified. If the limitless and baneful potentialities that can be projected into the science and art of the future of medicine are to be averted, it becomes imperative in this transition period that the wise and tempered counsel of the medical profession exert its proper influence. That our medical descendants should look back and point a culpable finger to our page of history which would read that our actions were 'too little and too late' is a plaguing thought. Our responsibility in approaching and participating in these evolutionary processes is greater than many of us have been willing to admit; indeed, it is intimately involved with the medical security of our country as well as of our profession. Have we so long basked in the luxuriating rays of medicine as the apotheosis of professions that we have become languid and inelastic in our attitude and hesitant and fearful in our response to existing socioeconomic developments? I sincerely hope not.

Our motives are inherently sincere. They are based on desiderata to which we have held tenaciously and which we must guard assiduously lest future progress toward higher standards in medicine and professional tenets be jeopardized. Our ultimate objectives consist essentially in the provision of the best possible preventive measures against disease, the institution of the best possible forms of therapy and the ceaseless pursuit of advances and improvements in technical procedures and other prophylactic and therapeutic measures for clinical application. It requires no percipient degree of rationalization to realize that the complete fulfilment of these objectives for the entire nation would necessitate the development of a comprehensive medical service."

The address of the President-Elect, Dr. James E. Paullin also deserves serious consideration. While, it is true that Dr. Paullin has been on several committees that took him to Washington frequently he has not lived under the environment of Washington, and up to the present time there is no direct evidence that environment has materially changed his attitude towards American medicine and our democracy. The following is a quotation from the President-Elect's address: "The officers and trustees of the American Medical Association have earnestly devoted themselves in recent years to advancement of the policies established by the House of Delegates in the field of social security. The diligence with which they have pursued this task has permitted the people of our country, under the leadership of the medical profession, to undertake the gradual development of modifications in medical practice leading toward the eventual establishment of plans distinctly our own. We face the postwar period without the restrictions of a state system of medicine, a federal or state system of compulsory sickness insurance or any of the other limitations on medical practice developed by governments abroad as a part of state control in medical care. By the exercise of American initiative we find between twelve and fifteen million Americans now insured voluntarily against the costs of hospitalization and many state and county societies, industrial organizations and private insurance companies engaged in extending protection against catastrophic illness. The initiative still rests with the people and with the medical profession in determining the kind of medical care that is to be provided in the future and in assuring the widest possible distribution of medical services to all the people. The importance of sound planning at this time for future developments cannot be overemphasized. Under the leadership of American medicine, all the agencies concerned would cooperate in formulating programs for redistribution of physicians in the postwar period, for the provision of hospitals and medical centers and for the establishment of methods for making available preventive, diagnostic and curative methods as they are developed. In such planning we should consider the obligation that we owe to ourselves and to the peoples of the countries now dominated by the Axis for the supply of needed medical personnel necessary for the rehabilitation of the sick and injured."

Illinois has reason to feel particularly proud of the election of Dr. Herman Louis Kretschmer as our present President-Elect. It seems to the writer that Dr. Kretschmer has all of the qualifications of the medical statesman and that environment will have little to do in changing his present attitude and conception of American medicine. Dr. Kretschmer has long been associated with the Board of Trustees as Treasurer (for the past 10 years) which gives him an inside knowledge of the workings of the American Medical Association, and of the men who are likely responsible for the American medicine at the present time. Aside from this Dr. Kretschmer is a distinguished urologist, a prolific writer, and a professor of urology which stamps him from a scientific point of view as a thoroughly capable man. He is a past president of the Chicago Medical Society which gives him an inside view of the workings and activities of the County Medical Society, the problems of the County Medical Society, and the problems of the general practitioner. Aside from this, he was chairman of the committee of medical economics of the Chicago Medical Society for a number of years, and devoted a great deal of his time to the study of the economic problem of medicine and various plans of the distribution of medical care.

He, therefore, assumes the high office of President-Elect with all the qualities of a scientific man, with all the qualities of a medical statesmanship and the actual knowledge of the problems of medicine from the county, state and national viewpoint.

We feel sure that under his leadership the American Medical Association will make few mistakes during the next two years.

R. K. Packard, M.D.
Chairman,
Committee on Medical Economics.

VITAL STATISTICS FOR THE SECOND YEAR OF THE WAR

A review of the vital statistics of England and Wales shows that the fall in the birth rate continued in 1941 and the rate of 14.2 per 1,000 of the population was 0.7 below the rate for 1939. This was the lowest birth rate ever recorded, being 0.2 below the previous smallest rate, which was attained in 1933, although over 6,000 more births were registered than in that year. An improvement in the birth rate has occurred during the first quarter of the present year. The rate for the March quarter of 1942 recovered to 15.5, and was the highest recorded in this quarter during the past ten years. The stillbirth rate has declined during the past few years; the rates per 1,000 total births for the four years 1938-41 were 38, 38, 36, and 35.

Infant mortality has steadily risen during the war: rates for 1939-41 were 50, 55, and 58 per 1,000 live births, but remain below the level of a few years earlier; the average rate for 1931-35 was 62. The cause of the increase is a matter for conjecture, because no data are available. It is probable that the epidemic of whooping-cough experienced during 1941 was responsible for the major part of the increase.

The main feature in the vital statistics for the first year of war was the large rise in the death rate—from 12.1 in 1939 to 14.0 in 1940. The mortality rate showed considerable improvement in 1941 and declined to 12.9.

The death rate from all causes, including violence, in the first quarter of 1942 was only 14.8, compared with 15.1, 19.9, and 17.5 for the March quarters of 1939-41.

The mortality from tuberculosis was 2,363 in excess of the average number of 1937-39, an increase of 9%. The 1941 rise in tuberculosis mortality was twice that recorded in 1916, the difference being due mainly to a rise in mortality in children. In 1916 there was no alteration in the age group under 5, and there was a 16% increase at ages 5-9; in 1941 the increase of each of these age groups was 45% above the level of 1939.

The explanation advanced by Stocks is that the additional stresses, physical and psychological, imposed by war conditions proved too much for many patients already ill with pulmonary tuberculosis, so that they died in 1940 or 1941, before they would otherwise have done. The physical stresses were undoubtedly aggravated by the policy of closing sanatoria at the beginning of the war, and this probably advanced the date of death of many patients.

Other infectious diseases in which there were significant increases were cerebrospinal fever, whooping-cough, and enteric infections.

The deaths from most of the other diseases in 1941 were in excess of the average of 1937-39. The most notable increase was that of coronary disease, in which there were 2,062 deaths in excess, an increase of 13%. The excess of deaths from pneumonia and bronchitis over the total for 1939 was probably due to conditions arising from air raids, actual or expected, combined with the severe winter, although the winter of 1939 was severe too.—*British Medical Journal.*

Two Gremlins were having a little argument way up in the blue. One said to the other:

"Oh, so you don't believe in airmen?"

—*Argosy.*

Medicine's Role in the War Effort

ARMY SPECIALIZED TRAINING PROGRAM FOR MEDICAL STUDENTS

The War Department has sent the following letter to the deans of all participating medical schools:

It is anticipated that training in medicine, dentistry and veterinary medicine under the Army Specialized Training Program will have been initiated by July 23 in all approved schools of medicine, dentistry and veterinary medicine, with the exception of the Woman's Medical College of Pennsylvania.

The assignment of enlisted men to the Army Specialized Training units at these institutions is, until further notice, restricted to those who are currently enrolled in these schools, to those who have been accepted by them for entering classes in medicine and dentistry and to accepted preveterinary students who are members of the Enlisted Reserve Corps.

The present restriction of selection for the continuation of preprofessional and assignment for professional training under the Army Specialized Training Program to the enlisted men who have assured individual vacancies in approved schools, through their acceptance for a future entering class, is necessitated by the fact that the freshmen classes have been filled for 1943, the first half of 1944 and, in a number of instances, for late 1944. If these accepted applicants are in or enter active military service, they will be assigned to the Army Specialized Training Program for the completion of the prerequisite preprofessional training and subsequent timely transfer to the Army Specialized Training unit at the school by which accepted.

It is obvious, however, that the medical and dental schools cannot continue to fill their future freshman classes from civilian sources only: many students contemplating or preparing for the study of medicine or dentistry will have been inducted into one of the armed forces before acceptance by an accredited school is possible. If the supply of physicians and dentists, not only to meet the requirements of the armed forces but also for postwar civilian needs, is to continue beyond those now in or accepted for professional training, appropriate steps must be taken by the Army and by the Navy to assure necessary preparatory studies by qualified individuals in the military service, with a view to subsequent professional training in medicine and dentistry.

In order that detailed plans may be made for such premedical and predental training under the Army Specialized Training Program, it is necessary that the War Department determine the number of Army trainees who may be assigned to Army Specialized Training units at medical and dental schools in future freshman classes. The program of the Army will require at least 55 per cent of the vacancies in medical schools and 35 per cent of those in schools of dentistry. No trainees, other than as stated above, will be assigned to units at schools of veterinary medicine.

How Medical Students Will Be Selected

The purpose of this letter is to explore the possibility of a mutual agreement whereby carefully selected enlisted men not accepted as individuals by the individual schools of medicine or dentistry may be assigned to Army Specialized Training units thereat for professional training with a view to receiving the appropriate degree in medicine or dentistry, and appointment as first lieutenants in the Medical or Dental Corps of the Army of the United States.

The procedures involved in the selection and training of the enlisted men whom you will be requested to train in medicine or dentistry may be outlined briefly as follows:

On entering the Army, the recently inducted soldier is given certain classification tests, the results of which are entered on the record which accompanies him to the unit or installation in which he receives his basic military training, thirteen weeks in duration. Those with certain high scores will there appear before the Army Specialized Training Program field selection boards for determination whether they should be assigned to this

program for training at the college level. The actual field of such training and the academic level at which training should begin will be determined at the classification and assignment unit to which the selected soldiers are first assigned (Specialized Training and Reassignment Unit, referred to as a STAR Unit).

From the STAR unit candidates who are manifestly suitable for or interested in the study of medicine or dentistry will be transferred to an appropriate training unit to begin preprofessional instruction at the basic level. The preprofessional curriculum of the first two terms, of twelve weeks each, is common to that followed by trainees tentatively selected for engineering studies: mathematics, physics, general chemistry, English, and so on.

It is during the second term that the real selection for preprofessional training is made, with a view to subsequent training in medicine or dentistry. Representatives of approved schools of medicine and dentistry will participate in this selection. It is on them that the War Department is depending for the most careful determination of the enlisted men who should continue training in preprofessional studies. Since premedical and predental training, per se, is of little value in the military service, attrition must be held to the minimum. At this level the trainees not considered fully qualified, especially as regards fitness and aptitude for and attitude toward the study and practice of medicine and dentistry and service as officers in the Medical or Dental Corps of the Army of the United States, may be considered for training in other fields.

The trainees selected for future training in medicine or dentistry begin, in the third term, their biologic studies. These continue through term IV and term V, the last term. Organic chemistry and psychology are added in the fourth and fifth terms. In these two terms eight semester hours are available for subjects selected by the institution based on the special aptitude and interest of the trainee. This will permit a brief refresher course in a modern foreign language for trainees who have had appropriate previous instruction. It has not been considered possible to include such a course as a prescribed subject throughout the five terms.

Progress of Trainees Will Be Checked

The progress of the premedical trainee will be checked both by the usual faculty examinations and also by periodic nation-wide tests. The enlisted men who satisfactorily complete the premedical curriculum will be considered available for transfer to Army Specialized Training units for further training in medicine or dentistry. Such assignments must necessarily be governed by timely regional vacancies. The Army trainee will not make application for matriculation nor will he be accepted individually for a vacancy reserved for the War Department. His fitness for the study of medicine or dentistry has been determined. If recommended at the completion of preprofessional training he will be academically qualified. If it is proved that he cannot continue satisfactory progress in his medical or dental studies, he will be relieved from the Army Specialized Training Program for assignment to other duties.

While it is felt that in the future the complete task of preparing physically qualified male students for the study of medicine or dentistry will devolve principally on the Army or the Navy, it is certain that premedical and predental students will continue to enter the military service at various academic levels. At the completion of their basic military training these individuals must be given serious consideration for the continuation of their preprofessional training and subsequent professional training under this program. The selection of these enlisted men for such training will be made at STAR units and must be conducted with the same care as, indeed with even greater care than, that applied to trainees whose complete collegiate training has been under either the Army or the Navy program. Separate curriculums have been arranged for such trainees.

Contracts With War Department

Within the near future negotiations will be begun with your institution for a contract with the War Department for the training of enlisted men in medicine or dentistry under the Army Specialized Training Program. This contract will contain provisions whereby the school will agree to train the enlisted men currently enrolled and those who have been accepted by the school for certain entering classes. It will also stipulate that, for the freshman class of the academic session agreed on by you and the negotiation officer, and for subsequent entering classes, you will make available to the War Department a specified number of vacancies for Army trainees. The number desired by the War Department represents, as already stated, approximately 55 per cent of the first year classes in medicine, 35 per cent of those in dental schools. The Navy is, I understand, requesting 25 per cent of such vacancies in medical schools, 20 per cent in dental schools.

Because of the necessity of assigning Army trainees to fill these vacancies on a strictly numerical rather than on a name basis, no assurance can be given that individual students accepted by you for classes in which a definite number of vacancies have been reserved for the War Department will be assigned to the Army Specialized Training unit at your school. It is realized that such a policy will limit the personal selection of medical and dental students which has proved so satisfactory and successful in previous years. However, no plan whereby individual assignment to these units may be effected appears feasible.

The transfer of medical or dental trainees from one unit to another is not contemplated, except,

of course, in the case of medical trainees who have successfully completed their training in the schools of the basic medical sciences. It is felt that such trainees may advantageously be transferred as individuals, and to this end it is requested that arrangements now in force between the deans of the various approved schools of medicine be continued.

The War Department and my division fully appreciate the wholehearted cooperation which has characterized the attitude of the medical and dental schools toward the Army Specialized Training Program. I feel confident that this radical departure from the admissions procedures previously in operation at your school may be effected without detriment to sound medical and dental education.

Herman Beukema, Colonel, G. S. C.
Director, Army Specialized Training Division.

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NEW PROGRAM TO PROVIDE TRAINING FOR NURSES

Thomas Parran
Surgeon General, U. S. Public Health Service

The Bolton Act, approved on June 15, provides "for the training of nurses for the armed forces, governmental and civilian hospitals, health agencies and war industries, through grants to institutions providing such training, and for other purposes" (Public Law 74). The provisions of this war emergency law should aid in alleviating the serious nursing shortage throughout the country.

The act was drafted with the full cooperation of nurse training institutions, hospitals, the nursing profession and governmental agencies. Need for the measure was emphasized by the Health and Medical Committee, Federal Security Agency, of which Dr. Irvin Abel of Louisville, Ky., is chairman. Representatives of many hospitals and leading hospital associations also have urged that some such program be established by the government. The bill was passed by both houses of the Congress without a dissenting vote, and an appropriation sufficient to inaugurate the program has been approved. I hope for the participation of all eligible schools and immediate intensive recruitment of large fall classes.

A recentralized plan of operation has been established by the U. S. Public Health Service, the agency designated by Congress to administer the act. Training institutions will submit plans meeting the several requirements of the act, and funds will be paid to institutions when plans are approved. Subject only to meeting minimum requirements, full responsibility for carrying out the nurse training program remains as at present, with the training school.

An advisory committee of not less than five members is provided by the act to assist the Surgeon General of the U. S. Public Health Service in formulating rules and regulations to carry out the purposes of the act. The Federal Security Administrator has named nine persons representing "the nursing profession, hospitals and accredited nurses training institutions."

Members of the Advisory Committee are Dr. Oliver C. Carmichael, president of Vanderbilt University, Nashville, Tenn.; James A. Hamilton, director, New Haven Hospital, New Haven, Conn.; Miss Marion Howell, dean, Frances Payne Bolton School of Nursing, Western Reserve University, Cleveland; Sister Helen Jarrell, dean, Loyola University School of Nursing, St. Bernard's Unit, Chicago; Dr. Hyrum Leo Marshall, professor of public health, University of Utah, Salt Lake City; Rev. Fr. Alphonse M. Schwitalla, dean, St. Louis University School of Medicine, St. Louis; Miss Isabel M. Stewart, director, Division of Nursing Education, Teachers College, Columbia University, New York; Miss Margaret Tracy, director, School of Nursing, University of California, Berkeley; Miss Anna D. Wolf, director, School of Nursing, Johns Hopkins Hospital, Baltimore.

The first meeting of the committee was held in Washington on June 25 and 26 (The Journal, July 3, p. 683). Regulations growing out of decisions reached at this meeting will be published promptly.

Student nurses who receive training under the Bolton Act will be members of what the Advisory Committee voted to designate "U. S. Cadet Nurse Corps." These students will be provided with tuition, stipends, maintenance, fees, distinctive insignia and uniform, including a street uniform. Graduate nurses taking refresher and postgraduate courses provided by the new act as an extension of the "Training for Nurses" (National Defense) Act now in effect will not wear street uniforms.

The law sets forth rather fully the requirements which must be submitted for approval by the institution wishing to participate in the program. The institution has the choice of two speed-up plans for training, one requiring twenty-four months, the other thrity months.

Stipends to students under both plans will be not less than the following monthly rates: $15 for the first nine months of study, $20 for the following fifteen to twenty-one months of combined study and practice, depending on the curriculum of such institution and $30 for the period following the period of combined study and practice and prior to graduation. The government institutions pay for stipends given students during the first two periods of the course, for maintenance during the first nine months, for uniforms and insignia, and for reasonable tuition and fees throughout the courses of study and training. Institutions pay stipends during the final period of training and provide maintenance after the first nine months.

During the terminal period of training the institution will either afford student nurses under the plan an opportunity to complete their course of training until graduation, paying them a monthly stipend of not less than $30, or transfer the student

for training to some other institution if such training may be credited toward graduation. In the latter case the institution to which the student nurse is transferred agrees to pay her a monthly stipend of not less than $30 until graduation.

Funds to institutions will be paid quarterly in advance in the amounts estimated in order to enable institutions to carry out the provisions delegated to them by the act. Subsequent allotments can be increased or decreased, depending on how accurate the initial estimates have proved to be.

In return for training in the profession of nursing without cost to themselves, student nurses who enroll as members of the U. S. Cadet Nurse Corps agree to make their services available to the government or for essential civilian nursing duties for the duration of the war. Any student nurse who has enrolled since Jan. 1, 1941 in a school of nursing participating in the federal plan is eligible to join the corps.

Students who enrolled in the corps ninety days prior to the end of the war will be permitted to complete their training. Thus, members of the corps need not fear that their training will terminate before the course is completed.

The shortage of nurses has reached the danger point. Civilian hospitals are carrying peak loads. Some of them have closed units because they are unable to secure sufficient numbers of nurses. In industrial boom areas, nurses are needed for hospitals, war plants and public health services. Health agencies in all areas report a critical shortage of nurses.

To reach the 1943 goal of 65,000 new student nurses, which is actually somewhat short of the real need, more than 10 per cent of the approximately 600,000 girls graduating from high school each year must be secured.

In the new training program student nurses will be provided with a lifetime profession and at the same time have the satisfaction of gaining recognition for rendering a national war service.

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SALE OF PENICILLIN RESTRICTED

The War Production Board has issued allocation order No. M-338 which states that on and after July 16 no supplier shall use or deliver penicillin except as specifically authorized in writing by the War Production Board. The word "supplier" in this order means any person who produces penicillin, imports penicillin or purchases penicillin for resale as penicillin but shall not include any retail pharmacist, hospital or physician.

The order points out that the fulfilment of requirements for the defense of the United States has created a shortage in the supply of penicillin for defense, for private account and for export.

ADDITIONAL ALLOTMENT IN ILLINOIS FOR OBSTETRIC CARE TO WIVES OF SERVICE MEN

The state director of public health of Illinois, Dr. Roland R. Cross, announced on June 15 that the U. S. Children's Bureau had granted his request for an additional June allotment of $86,000 to be used in paying physicians and hospitals for obstetric care to the wives of service men and pediatric care to their infants in case of acute illness. The demand for this service has increased greatly. In May alone the Illinois Department of Public Health authorized care for about 550 cases, or nearly as many as were authorized in the preceding six months. The regulations governing this project in Illinois, as approved by the state medical society, provide that the applications for this medical care should be signed both by the service man's wife and by the licensed physician of her choice and submitted to the state department of public health in advance. The necessary forms may be obtained from local health and welfare offices and Red Cross chapters or directly from the State Department of Public Health at Springfield.

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WARTIME GRADUATE MEDICAL MEETINGS

Medical Schools Cooperate in Graduate Education

Under the auspices of the Wartime Graduate Medical Meetings arrangements have been made with fifty-five medical schools, through the Council on Medical Education and Hospitals, to participate in the teaching programs. The faculty members have already been designated from the University of Chicago, the University of Louisville, Emory University School of Medicine, Yale University and New York University.

The section committees of the Wartime Graduate Medical Meetings are engaged in conferences with commanding officers of service hospitals in their areas, selecting subjects, dates and teaching personnel for graduate courses. A recent directive was issued from the Office of the Surgeon General of the Army calling attention of commanding officers to this educational project and urging their cooperation and active participation.

THE NEED FOR MORE ARMY NURSES

Army nurses are now stationed in thirty-five bases outside the United States as well as at 537 stations in the continental United States, the War Department announced on June 1. The need for more Army nurses remains pressing. Recruitment of nurses took an upward trend in the first three months of 1943, but the opening of new hospitals and an increasing number of overseas assignments are depleting the number of nurses in the reserve pool. It is estimated that one out of every four nurses in the nation will be needed by some branch of the armed forces by the end of this year. Courses in military orientation and physical conditioning established throughout the nation for Nurse Corps units generally require four weeks of class room application and drill ground calisthenics at the time the nurses enter the induction centers for enrolment in the corps. Heading the Army Nurse Corps is Col. Florence A. Blanchfield, who was formally appointed superintendent of the corps in June 1. Prior to the retirement of Col. Julia O. Flikke as superintendent of the Army Nurse Corps, she was assistant superintendent, with the rank of lieutenant colonel.

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PROCESSING PHYSICIANS IN THE FIELD

New instructions have been issued by the Officer Procurement Service and the Procurement and Assignment Service concerning the recruitment of physicians.

All available physicians are mailed invitations to seek commissions by the Procurement and Assignment Service. The invitation should be marked by the physician, indicating his choice of service, returned to the state chairmen, Procurement and Assignment Service, and forwarded to the appropriate agency. All requests for army appointments, including the Army Air Force, will be turned over to the Officer Procurement Service for processing and completion of the application.

The director of Naval Officer Procurement Service will handle requests for appointment in the Navy. Recent memoranda to the Officer Procurement Service stress urgent need for additional medical officers for the Army and describe technics to be employed.

RECORD LOW DEATH RATE IN EVACUATION HOSPITALS

The Surgeon General of the Army, Major Gen. Norman T. Kirk, is reported to have said in New York on July 8 that the death rate in the army's evacuation hospitals during the African campaign as "the lowest rate of any army at any time" and was between 2.5 and 3.5 per cent of admissions in comparison with a mortality rate during the last war in such hospitals of 15 per cent. General Kirk ascribed the recent low record to the use of plasma, excellent surgery and sulfonamide drugs. He said that blood plasma given at the front lines saved lives which would have been lost if not available for the treatment of cases in shock; he added that "the cream of surgery in America, the middle aged and the younger men who have been teaching," have been stationed at evacuation hospitals at the front.

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CALL FOR UNUSED X-RAY EQUIPMENT

The Safety and Technical Supplies Division of the War Production Board has issued a statement calling on physicians and dentists throughout the country to release their x-ray equipment not now in use in order to provide sufficient x-ray equipment for civilian needs.

"Members of the medical and dental professions going into the armed services and all others who are temporarily not using their x-ray apparatus are urged to dispose of it," Francis M. Shields, director of the Division said. "The demands for this equipment by the armed forces are heavy and will necessarily increase. Moreover, production is limited by shortages of critical materials, skilled workers, and other factors. It is imperative that every item of x-ray equipment should be kept at work.

"Doctors and dentists who are not now using their apparatus should sell it, not only as a patriotic duty but also as a matter of self interest. Because of rapid developments that are taking place, the doctor who stores his equipment when he goes to war may well find that it is obsolescent and of no use to him when he returns to civilian life and private practice. He can far better serve both his country and himself by letting some one else use it now, when it is so greatly needed.

"An inventory of used x-ray equipment avail-

able for sale is being compiled by the Safety and Technical Supplies Division, and well over a thousand items are already registered. All owners of idle apparatus are asked to report to the Division, on Form WPB 1976, giving complete data about the equipment, its condition and selling price. Some of the equipment already registered is too old or broken down to be of use; what is needed is apparatus capable of active service but now idle. Doctors, dentists, distributors, etc., looking for used equipment are in turn asked to make their needs known to the Division, so that their requests may be checked against apparatus that is for sale.

"Under the terms of Limitation Order L-206 issued in October 1942," Division officials explained, "the sale of new x-ray equipment is registered to the armed forces and civilian purposes approved by WPB."

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DENTAL HYGIENISTS NEEDED FOR ARMY DISPENSARIES

To supply the Army with dental hygienists, the U. S. Civil Service Commission has eliminated the experience requirement for such personnel. Many hygienists are in demand for army hospitals and dispensaries throughout the country, particularly in the West and Southwest. Dental hygienists are under federal civil service regulations and are stationed only within the United States. They receive $1,970 a year entrance salary including overtime pay. The work week of forty-eight hours includes eight hours of overtime.

Completion of a course in a recognized school of oral hygiene and registration as dental or oral hygienist is all that is necessary to qualify for the positions. There are no age limits and no written tests. Standard application forms must be filed with the United States Civil Service Commission, Washington, D. C. Persons studying oral hygiene may also file, receive provisional appointments, and enter on duty after completion of their courses and registration. Persons who are willing to work in any part of the country have the greatest chance of receiving appointment within a short time. Applicants who desire information about living conditions in areas where army hospitals and dispensaries are located should, on receiving offer of appointment, get in touch with the appointing officer for such information. It is possible that vacancies will occur in the Public Health Service and the Veterans' Administration. Persons already being utilized to their fullest capacity in war work should not apply. Federal appointments are made in accordance with War Manpower Commission policies and employment stabilization plans. Persons selected for appointment may be required to secure statements of availability, but these need not be secured until offer of appointment is received.

Application forms may be obtained at post offices, at Civil Service regional offices and at the U. S. Civil Service Commission in Washington, D. C.

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COMMISSIONS FOR WOMEN PHYSICIANS

Women Physicians who are at present either members of the Women's Army Auxiliary Corps or Contract Surgeons may now secure commissions in the Medical Corps, Army of the United States. They should apply to the Office of the Surgeon General, Washington, D. C. If the application is approved after clearance by the Procurement and Assignment Service, it will be forwarded to the Officer Procurement Service for further processing. Members of the WAAC will then secure a release through channels from the Director, Women's Army Auxiliary Corps. Contract Surgeons will be similarly processed except that they will be released by the Commanding General of the Service Command by whom their contracts were effected, or in the case of the Military District of Washington by the Surgeon General.

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RESTRICTIONS ON DELIVERY OF CAFFEINE AND THEOBROMINE

The War Production Board has amended conservation order M-222 to provide that no supplier shall deliver caffeine or theobromine to any person except as specifically authorized or directed in writing by the War Production Board, and no person shall accept delivery of caffeine or theobromine which is delivered in violation of this order. However, specific authorization in writing of the War Production Board is not required for the (1) delivery of these drugs for medicinal purposes by any supplier to any person for compounding into standard dosage forms,

(2) delivery of caffeine or theobromine by any person to any other person for compounding into standard dosage forms for medicinal purposes pursuant to toll agreement or (3) delivery by any supplier to any person in any calendar month of not more than 2 pounds of theobromine and not more than 2 pounds of caffeine. These and other amendments to conservation order M-222 were published by the War Production Board, Washington, D. C., on July 6.

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FEMALE DIETITIANS AND PHYSICAL THERAPY AIDES IN MEDICAL DEPARTMENT OF ARMY

Under an act approved on Dec. 22, 1942 the Congress authorized for the duration of the war and for six months thereafter the employment in the Medical Department of the Army of such female dietetic and physical therapy personnel as are considered necessary by the Secretary of War. Regulations have recently been issued under which such appointments will be made (8 Federal Register 7525, June 8, 1943). According to these regulations the director of dietitians or of physical therapy aides will hold the rank of major, a chief dietitian or chief physical therapy aide the rank of captain, a head dietitian or head physical therapy aide the rank of first lieutenant, and a dietitian or physical therapy aide the rank of second lieutenant.

Original appointments will be made in the grade of dietitian or physical therapy aide, except original appointments made in theaters of operation outside the United States, in which case appointments will be made in such grades as the Surgeon General may deem appropriate. The director of dietitians and the director of physical therapy aides will be designated as such by the Secretary of War for a period of four years, unless sooner terminated. Application for appointment should be made to the Surgeon General, who will furnish the necessary blank forms. The same regulations as to marital status will apply to dietitians and physical therapy aides as apply to Reserve nurses, and the same physical standards will be required as are required for appointment in the Army Nurse Corps. Appointments will not be made after the applicant has reached her forty-fifth birthday.

An applicant to be eligible for appointment as a dietitian must have a bachelor's degree from an approved college with either a major in foods and nutrition or in institutional management. In addition she must have completed a training course for dietitians approved by the Surgeon General. Two years of experience in a hospital approved by the Surgeon General may be substituted for the training course but only in case the experience includes diet therapy, planning adequate menus, supervising employees in food preparation and service, controlling food costs, and ordering food supplies and equipment. One year of such experience must have been within the past ten years.

The minimum requirement for appointment as a physical therapy aide will be completion of two years in an approved college with major emphasis on physical education or biologic science, or graduation from an accredited course of nursing, and in addition the applicant must have completed a training course in physical therapy approved by the Surgeon General.

Female dietitians and physical therapy aides employed by the Medical Department of the Army in the continental United States prior to March 31, 1943 may be appointed in the Medical Department of the Army if they meet the physical requirements, are recommended by the commanding officer of the hospital as being suited to the military service and have had training and experience acceptable to the Surgeon General. Similar provision is made for the appointment of female persons employed by the Medical Department in a civilian status as dietitians or physical therapy aides in overseas hospitals prior to March 31, 1943.

An applicant otherwise qualified will be authorized to appear at her own expense at the nearest army station having adequate facilities for completing a final type physical examination. The first assignment of a dietitian or physical therapy aide will ordinarily be made to a station in the United States, other than appointments made overseas, to afford an opportunity to become familiar with military and medical department procedures. When available, quarters in kind for dietitians and physical therapy aides will be furnished, with due consideration for their relative rank and standard items of bedroom furniture will be furnished. Dietitians and physical therapy aides will be subsisted under the provisions of existing regulations for the operation of messes for duty and patient personnel in an officer status.

The lesson taught repeatedly in the study of tuberculosis will probably one day be found equally true of other conditions. Basically a bacterial infection, this disease lies dormant only to flare up violently when the barriers raised by adequate nutrition are broken down. Denmark's experience in the last war was a classic example of the relationship between food and this disease. A thirty per cent rise in the mortality from tuberculosis occurred in 1916-17; a similar rise was noted in the belligerent countries and in Holland, continuing to the end of the war. In Denmark, however, after a blockade that prevented the export from that country of foodstuffs — chiefly meat, fish, butter, and milk — there was a prompt fall in the death rate. J. A. Johnston, M.D., Henry Ford Hosp., Nat. Parent-Teacher, Apr. 1943.

Original Articles

THE TREATMENT OF BURNS

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DETROIT

The subject of burn therapy is assuming an ever-increasing importance. The frequent incidence of burns among naval and land casualties in the present war is so well known as to need no re-emphasis. There is necessity, however, to clarify at this time the general principles of burn treatment. Considerable confusion has arisen from the influx of numerous new remedies which have been added to the many already in vogue. Only by a clear understanding of principles can a logical choice of burn treatment be made in any particular case.

The treatment of burns may be divided into four phases as follows:

1. General treatment of the burned patient.
2. Local care of the burn wound.
3. Early plastic care of granulating surfaces such as occur by definition in third degree burns.
4. Late plastic care of deformities.

Only the first three of these phases will be considered in this paper. This is because these three elements of burn treatment should be performed concurrently and conjointly; one is not complete without the others and two of the three alone are not enough; and because they must often and preferably should be performed by the same surgeon. In other words, for proper care of a severe burn the general care, local care and early plastic care should be made to flow smoothly one into the other. Delays between them are dangerous. Good local treatment without adequate general care may lead to a clean wound but a dead patient. Similarly, proper early care without prompt grafting of granulating surfaces is like doing a cholecystectomy and then forgetting to close the abdominal wound.

On the other hand, the late plastic care of deformities and scars, once the granulating surface is healed, should often be delayed several months, is usually not urgent, can wisely be performed by another surgeon, perhaps thousands of miles away, and is a separate chapter in the care of any particular burn patient.

Consideration will now be given in detail to the co-ordination of the first three phases of burn treatment.

1. GENERAL TREATMENT OF THE BURNED PATIENT

This element of burn care is of extreme importance. In the early stages it primarily consists of the prevention and treatment of shock. Burn shock is essentially, even though not entirely, due to the loss of blood plasma from the weeping burned surface and into the damaged burned tissues. Consequently, efforts should be made to control the loss of plasma and to restore the blood volume by an amount of plasma equal to that already lost. Crystalloid solutions (saline, glucose, Ringer's solution, etc.) are of only temporary value in this respect as they tend to leak out of the injured blood vessels. Whole blood is useful, but the erythrocytes are of no value at this stage of burn treatment and make blood typing and cross-matching necessary. Plasma is lost and plasma should be restored. Of especial importance is the amount of plasma that is given. It is no more logical to give every burned patient just one pint of plasma than to give every diabetic patient just

From the Division of General Surgery, Henry Ford Hospital, Detroit.
Given before the North Shore Branch of the Chicago Medical Society, April 6, 1943.

10 units of insulin. In severe cases several liters of plasma may be needed and the amount should be calculated by two methods devised by the author.

1. *Hospital method.* When laboratory facilities are available, the simplest technic is to give 100 cc. of plasma for every point the hematocrit is above the normal of 45. The method applies to adults; for children the amount of plasma is calculated proportionately according to body weight, with the average adult weight set as 70 kilos. If the plasma protein level is below normal, this method gives too low a value. In such a case an additional 25 per cent of the calculated amount of plasma should be added for every gram the protein level is below 6 Gm./100 cc. When hemoglobin determinations rather than hematocrit readings are available, 50 cc. of plasma should be given for every point the hemoglobin is above the normal of 100. When red cell counts are used as the basis of calculations, 50 cc. of plasma should be given for every 100,000 the red count exceeds the normal of 5,000,000. When the amount of plasma indicated by one of these indices has been given this does not mean that the treatment is finished. Plasma continues to leak out of the injured capillaries during the first 36 hours following the burn and repeated observations of the hematocrit (or hemoglobin or red count as the case may be) as often as every three hours may be indicated in serious cases, followed by prompt administration of the amount of plasma indicated.

2. *First aid method.* When laboratory facilities are not available, the dose of plasma may be alculated according to the extent of the body surface involved by the burn. This is estimated by Berkow's formula, and 50 cc. of plasma should be given for every per cent of the body surface affected by a deep (blistering) burn. This method roughly gives the entire amount of plasma that will be necessary; this amount should not be administered all at once but according to the following schedule: one third the first two hours, one third the next four hours and one third the next six hours.

Besides the all-important use of blood plasma, standard and empiric methods of treating shock should be used. These include the conservation of body heat, elevation of the foot of the bed, rest, quiet, oxygen, and possibly the use of adrenal cortical steroids.

In addition to the therapy of burn shock, burn toxemia and burn sepsis should be prevented and treated in so far as is possible.

2. LOCAL CARE OF THE BURN WOUND.

Such treatment not only requires meticulous care in its own performance, but should always be carefully correlated with the general management of the burned patient. In a recent book on burns by the present author, over eighty different methods of local treatment were listed, testifying to the confusion that exists over this aspect of burn therapy. It is impossible to list all of these methods here, but in general they can be classified into three main groups as follows:

a. *Tanning and coating agents.* Tannic acid spray, tannic acid jelly, tannic acid baths, tannic acid-silver nitrate, gentian violet, gentian violet-silver nitrate, triple dye, ferric chloride, brilliant green, sulfadiazine spray, etc. Of these agents, two deserve especial attention at this time:

(1) Tannic acid-silver nitrate. This is the most popular of the tanning agents at the present time and produces a tan in a matter of minutes or even seconds, while other slower tanners like tannic acid jelly may take days to accomplish the same purpose. An unusually high incidence of liver necrosis has been reported from those clinics using the slow tanning method. It would seem that the dangers of using tannic acid jelly are so great that its use should be stopped entirely. The increased toxicity is probably due to the absorption of tannic acid or tannates over the prolonged period of time during which the substance is in contact with the tissues in a moist and easily absorbable form. The recent article by Erb, Morgan and Farmer (1943) gives statistical data on liver necrosis associated with tannic acid in their fatal cases.

(2) Sulfadiazine sprays and films. These have been especially advocated by Pickrell and have several points of merit. Pickrell originally (1941) advocated a solution of 3 per cent sulfadiazine in 8 triethanolamine. This was sprayed on the burn every hour the first day, every two hours the second, every three hours the third, and every four hours the fourth day. Later Pickrell used a fluid sulfadiazine film which has the following compositions:

2% Sulfadiazine
2% 2-amino-2-methyl-1, 3-propanediol
7.5% Methocel (25 cps)
0.1% Aerosol OT
0.1% Sod. Benzoate
Water to make 100 cc.

More recently Pickrell used 2 per cent sulfadiazine, eliminating the solvent, propanediol, which helps to hasten the drying time. This latter solution is quite viscous but can be sprayed with a No. 261 DeVilbiss hand atomizer, a spray gun, or as Pickrell more frequently does, can be applied to the burned surface with an ordinary paint brush. The film will have formed in less than an hour on relatively dry surfaces. On a moist wound a slightly longer time is required, but drying can be hastened with the aid of a hair dryer. In either case, one application of the solution is usually all that is necessary to produce a transparent film of satisfactory thickness. For use in the outpatient department, preformed films containing 10-15 per cent sulfadiazine have been found especially applicable. These preformed films have the advantage that the dressing need not be changed for a week or more. Such a film is made by Pickrell in the following manner:

"Suspend 50 grams methocel (15cps) in 500 cc. boiling water. Freeze over night. To water add 25 grams sod. sulfadiazine, 20 glycerin, 20 propylene blycol, 10 carbowax (4,000). Make to 250 cc. Freeze over night. The following morning, mix the two solutions, strain through gauze, and using a pressure spray gun, spray on horizontal glass surface which has been cleaned with aerosol. Film will have formed in less than one hour under an infra red lamp. Films can be sterilized in water-proof cellophane."

For burns around the face, genitalia, etc. to which it is difficult to apply and maintain a dressing, Pickrell used a sulfadiazine gel which dries in about five minutes, also producing a transparent film. It has the following composition:

12.5% methocel (15cps)
3.0% Sulfadiazine
8.0% triethanolamine
1.5% carbowax (4,000)
1.5% carbowax (1500)
0.1% Butoben (Parahydroxybutylbenzoate)
0.05% aerosol OT
Water qs. ad 100 cc.

b. *Washing methods.* Saline baths, water baths, Bunyan envelopes, saline dressings, etc. Such methods are of especial value in old burns or in burns about the hands, face, or genitalia. The Bunyan envelope is especially popular in Great Britain for the treatment of deep burns of the hands (airman's burn).

c. *Ointments.* Vaseline gauze, zeroform gauze, scarlet red, paraffine, etc. Ointments have been applied to burns since Hippocrates (ca. 430 B.C.) advised the use of "old swine's seam mixed with resin and bitumen." Ointment dressings have always had the advantage of not sticking to the burned eschar and of being easily removed, but at the same time they have been accompanied by considerable infection. The recent incorporation of sulfonamides in the ointments has reduced the infection to some extent, while perhaps more important the combination of pressure with the ointment dressing as advocated by Koch has not only reduced infection, but at the same time has controlled plasma loss.

The method of Koch deserves special emphasis at this time. It essentially involves three phases:

(1) *Washing of the burn wound.* This should be done gently, under aseptic precautions, and using white soap, water, and soft sterile cloths. The burn wound should be treated like any other wound and while the cleansing should be thorough, its gentleness should be such that general anesthesia is not required. The successful outcome of burn patients treated after the recent Boston Cocoanut Grove disaster without washing, as first suggested by Cope (1935) is to be considered in deciding on a future plan of treatment. This technic probably should be further tested under carefully controlled conditions before being finally adopted.

(2) *Application of a bland ointment gauze.* It would seem that the exact nature of this gauze is of secondary importance. In general a fine mesh gauze is preferable and the impregnating substance may be any of the following:

(a) Vaseline gauze (Siler and Reid, 1942).
(b) Zeroform gauze (Koch).
(c) 20% sulfathiazole emulsion in aquaphor gauze (Dragstedt, 1942).

(d) Sulfathiazole emulsion (M.G.H. formula) (Gurd, 1942).
(e) Scarlet red guaze (Romence, 1942).
(f) Boric acid ointment gauze (Churchill, 1942).

The author's personal preference is for the boric acid ointment gauze, believing that the incorporation of a sulfonamide is of secondary importance.

(3) *Application and maintenance of uniform pressure.* This is one of the essential features of the method. The use of generous amounts of sterile mechanic's waste as a buffer and distributor of the pressure is important. Mechanic's waste is much cheaper and easier to handle than sea sponges. Over the entire dressing an elastic bandage (ace, tensor, curity, tetra, etc.) should be applied. These bandages may be used again while elastic adhesive which has certain advantages, has the objection that it cannot be used twice. Such a bandage should not be changed for 7 to 12 days. In some cases splints should be used along with the pressure.

3. EARLY PLASTIC CARE OF GRANULATING SURFACES

Third degree burns are by definition those which produce granulating surfaces. Until these surfaces are healed, the patient is the subject of continued hemorrhage and plasma loss, he is in constant danger of all sorts of septic complications, and the longer the granulations remain, the worse will be his cosmetic and functional deformity. In all cases the so-called principle of closure of the wound should be carried out. As long as a granulating area is present, the burn is not healed and the wound is not closed. As already stated in the realm of abdominal surgery one would not think of attempting a cholecystectomy if he did not know how to close the abdomen. Similarly, no physician should treat severe burns who does not know when and how to skin graft the resulting granulating surfaces. Any burn granulating surface more than two inches in diameter, or which appears that it will take more than three additional weeks to heal should be skin grafted. Skin grafting of burns is most simply done when the dermatome is used. The technic of skin grafting is adequately described elsewhere, and will not be mentioned in detail here. The dressing of skin grafts is identical to that of a primary burn when the latter is treated by the Koch method. This includes bland ointment gauze covered by a uniform pressure dressing.

CONCLUSIONS

1. Burn treatment should be a continuous process with careful correlation of the local, general, and skin grafting phases.

2. One of the chief items in the general treatment is the control of burn shock with adequate doses of plasma. The plasma dosage for a average sized adult is best calculated by giving 100 cc. of plasma for every point the hematocrit exceeds the normal level of 45. In serious cases repeated observation coupled with repeated administration of the required amount of plasma is necessary.

3. In applying any local treatment, the application of general principles and meticulous technic are absolutely essential. The method of careful cleansing of the burn wound followed by the application of a bland ointment gauze which in turn is covered by a carefully fashioned and uniform pressure dressing is a highly useful form of local burn therapy.

4. The earliest possible skin grafting of granulating surfaces is mandatory in all cases.

BIBLIOGRAPHY

1. Allen, J. G.; Owens, F. M., Jr.; Evans, B. H., and Dragstedt, L. R.: Sulfathiazole Ointment in Treatment of Burns, Arch. Surg. 44: 819-828 (May) 1942.
2. Allen, H. S., and Koch, S. L.: The Treatment of Patients with Severe Burns, Surg., Gynec. & Obst. 74: 914-924 (May) 1942.
3. Erb, I. H.; Morgan, E. M., and Farmer, A. W.: The Pathology of Burns: The Pathologic Picture as Revealed at Autopsy in a Series of 61 Fatal Cases Treated at the Hospital for Sick Children, Toronto, Canada, Ann. Surg. 117: 234-255 (Feb.) 1943.
4. Harkins, H. N.: The Treatment of Burns, Charles C. Thomas, Springfield, Illinois, 1942.
5. Harkins, H. N.; Lam, C. R., and Romence, H.: Plasma Therapy in Severe Burns, Surg., Gynec. & Obst. 75: 410-420 (Oct.) 1942.
6. Pickrell, K. L.: A New Treatment for Burns: Preliminary Report, Bull. Johns Hopkins Hosp. 69: 217-221 (Aug.) 1941.
7. Pickrell, K. L.: A Sulfonamide Film for Use as a Surgical Dressing: Preliminary Report, Bull. Johns Hopkins Hosp. 71: 304-306 (Nov.) 1942.
8. Pickrell, K. L.: Personal Communication, March 26, 1943.

I was talking to a WAC the other day, and I asked her how she liked being in the service, and she said, "I like it all right, except that I hate saying *yes ma'am* all day, and *no sir!* all night."

—*PM*

STUDIES ON MERCURIAL DIURESIS
IV Ammonium Chloride: The Evaluation of Its Clinical and Chemical Effects

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During the course of investigations covering the various aspects of mercurial diuresis, comprising a study of over five hundred patients, the large amount of ammonium chloride which was used attracted considerable attention. This curiosity which was aroused, upon further investigation, unfolded the astounding fact, that over six hundred pounds of this drug were consumed in the hospital, during a twelve month period. Clinical records were studied and a research begun with a view of evaluating the clinical and chemical effects of this drug, and to determine, if possible, the benefical effects warranted such extensive employment.

The use of acid producing salts such as ammonium chloride has been in vogue for many years. They are employed for the purpose of promoting diuresis or to augment diuresis induced by a mercurial diuretic. The explanation for the mechanism of their action, has been principally that they create an abnormal acid reaction in the tissues, or, a fall in the alkali reserve of the blood, or, by increasing the chloride content of the blood, tissues and edema fluid. However, various investigators have not reported consistent results. In addition, it has been observed that the maximal acidifying effect, particularly by ammonium chloride was greatest on the second or third day of its administration, even when the drug was taken continuously. Its use is therefore, advised intermittently and, the injection of the mercurial diuretic timed for this maximum degree of drug induced acidosis. All investigators agree that the larger doses are necessary, usually, six to ten grams daily to produce the effects. Smaller doses are without benefit. Intolerance to these larger dosages is frequent despite the form in which the drug is given.

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Method of Study: Only patients with cardiac edema were used. These included the more common types of etiological heart disease with severe congestive failure but without evidence of kidney damage. The cardiac regime consisted of complete bed rest, a diet of 1683 calories, carbohydrate 215 grams, protein 55 grams, fat 67 grams, NaCl 0.985 grams with a total twenty-four hour fluid intake of 1600 cc., this including the water content of the foods. Digitalis was used on all patients with addition of morphine and phenobarbital for sedation. A base level of three days was usually sought for when possible, in determining the output. The results were evaluated by considering four groups of patients, studied first from the consideration of the amount of the diuresis, and secondly the variations in the chemical changes produced in the blood.

I. *The Diuretic Effect:* Group I includes those patients whose urinary output was influenced by the action of the cardiac regime alone, bedrest, digitalis, diet, restricted water and salt intake etc. Most patients in this group were then given ammonium chloride for three days after which the mercurial diuretic was added. Sixty-seven patients formed group one receiving neither ammonium chloride, nor an intravenous mercurial diuretic. The twenty-four hour urinary output averaged 834 cc., with a maximum of 2900 cc. and a minimum of 100 cc.

Group II comprises those patients who were on the cardiac regime and then ammonium chloride was added to evaluate the effect of the administration of this drug. The dosage was usually six grams daily and if no untoward effects occurred this was raised to nine grams daily. The third day urinary output volume was selected for the comparison in order to utilize the maximum acidifying action of ammonium chloride. This comprised thrity-nine patients. The average output was 840 cc. with a maximum of 2500 cc. and a minimum of 300 cc.

Group III totaled forty patients who were treated by the cardiac regime without ammonium chloride but who were given one cc. of the mercurial diuretic intravenously. The diuretic used thoughout this study was Esidrone, Ciba, the solium salt of a complex organic molecule containing a large amount of mercury in which the theophyllin radicle is also found.

The average output in this group was 3146 cc., with a maximum output of 5800 cc. and a minimum of 1000 cc.

Group IV comprised forty-five patients upon the cardiac regime, who were given one cc. of the mercurial diuretic intravenously at the end of three days medication with ammonium chloride. The average output in this group was 3380 cc. with a maximum of 6000 cc. and a minimum of 1100 cc.

CHART I
Urinary Output Measurements

	I Cardiac Regime	II NH_4CL Plus I	III Mercurial Plus I	IV NH_4CL Plus I & Mercurial
No. of Patients	67	39	40	45
Average Output	834cc	840cc	3146cc	3380cc
Maximum Output	2900cc	2500cc	5800cc	6000cc
Minimum Output	100cc	300cc	1000cc	1100cc

Chart I illustrates the accumulated evidence in the four groups. The results under the conditions of the experiments are strikingly similar and the variations are not sufficiently significant to warrant too much value being placed on the administration of ammonium chloride. For example, groups I and II vary in the average output a total of six cc., while the difference between groups three and four is only 244 cc., an amount which will produce very little difference in either the appearance of an edematous patient or in his weight. Consideration must be given also to the point that this apparent slight benefit may have been due to the action of the other factors in the cardiac regime, which influence may, of course, vary from day to day. Thus, not much change or benefit can be ascribed to the use of ammonium chloride either in promoting diuresis or enhancing the efficiency of the mercurial diuretic under the conditions of severe edematous patients as conducted by these experiments, where the measurement of the urinary output is the criterion for the effectiveness.

II. The Effects On The Body Chemistry

Method of Study: The effect on certain phases of the blood chemistry particularly with reference to the acid base balance was investigated in the following manner. Cardiac patients with severe edema, upon admittance to the hospital, were placed upon the cardiac regime previously described. The CO_2 combining power of the plasma, the urea nitrogen, the blood chlorides as sodium chloride, the inorganic phosphorus, the inorganic sulphates, and in a few instances the total blood phenols were quantitatively estimated. Standard accepted chemical methods were used in the quantitative chemical techniques. Then ammonium chloride was given by mouth in doses of six to nine grams daily for three days, at the end of which time, the quantitative estimations were repeated. Then the mercurial diuretic was administered intravenously. The blood chemistry estimations were again investigated after twenty-four hours corresponding to the maximum diuresis. In another group of patients, after the original determinations, the patients were given the intravenous diuretic without ammonium chloride having been administered. In this group the chemical studies were checked again after twenty-four hours and the maximum diuretic action. One must note, however, that in order to correctly registrate alterations in the blood chemistry, shorter periods could have been used such as hourly or two hour studies.

However, this arrangement of the material permits a comparison of the blood chemical studies into:

First Group I: the blood chemical findings in the cardiac patient with severe edema.

Second Group II: the cardiac patient with his chemical studies before and after ammonius chloride with the changes induced by this drug.

Third: The cardiac patient with chemical studies before and after ammonium chloride administration, plus the chemistry found after diuresis induced by the intravenous mercurial diuretics.

Fourth: The cardiac patient with severe edema whose blood chemistry was investigated before and after mercurial diuresis. Attention directed to the following tables illustrates the results of these studies.

Chart II shows the chemical values before and after the dosage of ammonium chloride. The summary at the bottom of the table shows almost equal distribution of increases and de-

CHART II
CHEMICAL VALUES
Before and After Ammonium Chloride

Case No.	Date	Dose	Urea N_2	CO_2	Cl	S	P
1.	5/14			48	340	3.0	3.0
	5/16	18gm		61.4	290	3.5	2.4
2.	5/14			41.7	394	3.6	3.1
	5/16	18gm		40	231	3.3	3.8
3.	5/14			46	380		3.1
	5/16	18gm		48.1	248		3.6
4.	5/14			51	396	2.5	4.0
	5/16	18gm		55.7	209	2.4	3.8
5.	5/23		13	67	396	0.8	3.0
	5/27	22gm	8.5	64	409	0.8	2.6
6.	5/23		21	57	429	0.7	2.4
	5/27	24gm	19	70	445	1.2	2.4
7.	5/26		16	65	409	1.3	2.6
	5/31	30gm	16	57	462	1.3	2.9
	6/1	36gm	16	58	412	1.2	3.0
8.	5/27		8.5	56	338	1.5	2.6
	6/2	36gm	23.0	59.8	412	1.2	3.6
9.	5/27		14	62	338	0.8	2.5
	6/2	36gm	25	50	462	1.0	3.3
10.	5/26		37	48	396	2.0	3.6
	6/2	42gm	42	44	481	1.1	3.4
11.	6/20		25	55.5	338	2.3	3.6
	6/24	25gm	27	38.4	419	0.7	4.3
12.	6/16		23.3	58.6	363	2.0	4.0
	6/20	25gm	15	54	334	1.8	3.1
13.	6/16		8	48.6	429	0.9	2.5
	6/18	18gm	13	48	425	2.0	3.8
Number of Increase			5	5	7	4	7
Number of Decrease			3	8	6	7	5
No change			1	0	0	1	1
Maximum Increase			14.5	13.4	85	1.1	1.8
Maximum Decrease			8.3	17.1	87	1.6	.9

CHART III
CHEMICAL VALUES
Mercurial Diuretic With Ammonium Chloride

Case No.	Date	Dose	Urea N_2	CO_2	Cl	S	P	Phenol
1.	5/14		17	51	396	2.5	4.0	
	5/16	18gm	21	61.4	290	3.8	2.4	
	5/17		18	48	313	3.4	3.0	
2.	5/20	10gm	33	38	373	1.68	2.8	
	5/21		13	58	423	1.6	2.0	
3.	5/26	18gm	8.5	64	475	1.0	2.1	
	5/27		10.0	66	460	0.8	3.4	
4.	5/31	12gm	21	44.7	412	1.2	1.8	
	6/1		23	48	402	0.6	3.1	
5.	5/14		20	46	380	1.4	3.1	
	5/16	18gm	13	48	248		3.6	
	5/17		8.5	57	231	1.7		
6.	5/14			41.7	394	2.6	3.6	
	5/16	18gm		40	231	3.3	3.8	
	5/17			47.5	280	3.7	4.4	
7.	5/14		26	48	340	3.0	3.0	
	5/16	18gm		61.4	290	3.5	2.4	
	5/17			48	313	3.4	3.0	
8.	5/26		16	65	409	1.3	2.6	
	5/31	30gm	16	57	462	1.3	2.9	
	6/1		16	58	412	1.2	3.0	
9.	5/23		13.0	67	396	0.8	3.0	
	5/27	22gm	8.5	64	409	0.8	2.6	
	5/28		13.0	50	396	0.8	4.6	
10.	5/23		21	57	429	0.7	2.4	
	5/27	24gm	19	70	445	1.2	2.4	
	5/28		17	68	379	1.0	6.6	
11.	6/16		23.3	58.6	363	2.0	4.0	
	6/20	25gm	14	52	455	1.5	3.7	
	6/21		23	51.3	342	1.8	7.2	
12.	6/24	18gm	16	66	495	1.6	2.9	
	6/25		20	47.6	419	0.5	4.6	
13.	6/20		25	55.5	338	2.3	3.6	
	6/24	25gm	27	38.4	419	1.7	4.3	2.9
	6/25		17	30	442	1.0	4.3	3.1
14.	6/27	18gm	25	38	343	2.8	4.6	1.1
	6/28		15	48	338	0.5	5.4	1.0
15.	7/11	18gm	18	38	338	2.1	3.6	0.5
	7/12		10	48	435	2.7	3.1	1.2
Number of Increase			4	8	4	6	11	2
Number of Decrease			7	6	10	8	3	1
No Change			2	1	1	1	1	0
Maximum Increase			4	20	104	1.1	4.2	.2
Maximum Decrease			20	25.5	114	2.3	1.0	.1

creases in the chemical values in addition to practically the same significance in the maximum increases and decreases in the various chemicals investigated.

Chart III shows the values before and after ammonium chloride administration, and again after the use of the intravenous mercural diuretic. The summary at the base of the table again reveals almost equal variations in both increases and decreases, and in maximum and minimum fluctuations.

Chart IV reveals the evidence from the chemical investigations before and after the use of the mercurial diuretic as the sole variant in the experiment.

The comment to be made can be summarized in rather few sentences. The variations are not uniform, confirming somewhat related observations by investigators who dealt with the action of the mercurial diuretics alone. There is not sufficient evidence to support the statement that ammonium chloride greatly alters the chemical values in the blood studied by these experiments. Nor does it apparently affect the action of the mercurial diuretic on the blood chemistry as investigated under the described experiments.

SUMMARY AND CONCLUSIONS

1. Under the conditions of the above described experiments, the administration of ammonium chloride did not reveal any particular efficacy.

2. This applies to its action as a diuretic directly.

3. It also was not found to enhance particularly the action of the mercurial diuretic used.

CHART IV
CHEMICAL VALUES

Before and After Mercurial Diuretic

Case No.	Date	Urea N_2	CO_2	Cl	S	P	Phenol	Output
1.	5/20	11	64	376	2.0	1.8		500
	5/21	15	38	423	1.3	2.9		3800
2.	5/20	15	54	334	1.8	3.1		700
	5/21	20	63	482	1.2	2.8		1900
3.	5/24	16	55	380	2.0	4.0		500
	5/25	20	45	390	0.8	0.6		900
4.	5/31	15	58	462	1.3	2.0		300
	6/1	15	48	429	0.7	3.0		3000
5.	6/20	13	60.6	419	2.3	3.3		1800
	6/21	8	60	336	0.5	6.4		3100
6.	6/22	18	38.4	435	1.0	2.2		400
	6/23	8	43	338	1.8	4.4		1500
7.	6/22	15	47.6	429	2.0	2.9		400
	6/23	30	45	468	2.2	5.0		2200
8.	6/27	20	36	333	3.0	5.4	1.0	200
	6/28	16	49	409	4.8	4.9	1.6	2600
9.	7/11	18	38	343	1.9	3.2	1.1	1600
	7/12	18	40	340	2.7	3.6	1.7	3100
10.	7/6	15	45	482	1.6	3.8	1.0	1600
	7/9	14	38	496	1.4	3.8	1.1	5000
11.	7/25	13	48	425	2.0	3.8	1.2	700
	7/26	13	40	425	2.0	2.4	1.3	1400
12.	3/5	28	67.3	464	3.0	4.3	2.5	900
	3/6	20	47.5	511	0.9	4.0	2.5	4000
13.	3/12	13	59	445	2.3	3.3	2.7	800
	3/13	10	46	490	1.9	3.8	1.8	3000
14.	3/9	33	48.1	462	0.4	2.8	3.5	600
	3/10	28	42	458	1.1	3.4	4.6	4000
15.	3/14	21	54	429	1.5	3.3	4.1	300
	3/15	28	42	495	1.6	2.8	3.1	2000
16.	3/9	30	51	508	1.6	3.3	2.5	900
	3/10	32	54	416	1.3	4.0	5.0	3000
17.	3/18	17	62	429	2.0	3.1	3.5	600
	3/19	17	58	429	1.9	2.8	3.1	3500
Number of Increase		6	12	9	6	8	6	
Number of Decrease		7	5	6	10	8	3	
No change		4	0	2	1	1	1	
Maximum Increase		15	13	76	1.8	3.1	2.5	
Maximum Decrease		10	26	97	2.1	3.4	1	

4. No special significant alterations were found in the various chemical studies of the blood. Chloride variations showed somewhat wide ranges.

5. No tendency could be noted to the production of uremia.

6. No particular acidifying action was found upon the examination of the concentrations in the blood of those substance which indicate changes in the acid base balance.

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BIBLIOGRAPHY

1. Volini, I. F., and Levitt, R. O., — Studies On Mercurial Diuresis I; Esidrone, A New Mercurial Diuretic. Ill. Med. J. Oct. 1938.

2. Volini, I. F., and Levitt, R. O., — Studies on Mercurial Diuresis II; The Immediate Effect on the Venous Blood Pressure. Amer. Heart J. 17:187, 1939.

3. Volini, I. F., and Levitt R. O., — Studies on Mercurial Diuresis III, The Alteration Induced in the Cerebrospinal Fluid Pressure — Amer. Heart J. 19:566, 1940.

4. Hayman J. M. The Clinical Use of Diuretics. J. A. M. A. 107:1937, Dec. 12, 1936.

5. Keith, N. M., Barrier, C. W., Whelan, M. The Diuretic Action of Ammonium Chloride and Novasurol in Cases of Nephritis With Edema. J. A. M. A. 85:799, Sept. 12, 1925.

6. Keith, N. M., and Whelan, M. A study of the Action of Ammonium Chloride and Organic Mercury Compounds. J. Clin. Investigation 3:149, Oct. 1926.

7. Saxl P. and Erlsbacher, O. Ueber die Verstärkung der Novasurol Diureses durch Ammonium chloride. Wien, Klin Wchnschn 42:36, Jan. 10, 1929.

REST: PHYSICAL AND MENTAL

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Physicians as well as laymen commonly take rest for granted, like the air we breathe; there has been little disposition to study it scientifically, since only one laboratory has been devoted to the subject. However great have been the advances in other fields of present-day medicine, nothing has been discovered to replace Rest, which continues to be the most widely employed agent in medical practice.

Obviously, the clinical importance of rest must arise from some fundamental necessity of living matter. We know that active movements of the organism as well as the active maintenance of rigid or steady states require for their energy source the breakdown of more complex into simpler substances. In contrast with these energetic or destructive phases within the organism, there must occur corresponding restitutive processes — the rebuilding of potential energies. If action depends chiefly on the destruction of energy reserves, rest can be identified as the phase of reconstruction. Doubtless this is the characteristic, basis to the chemistry and physics of the human body, which accounts for the universal employment of rest in therapy.

During the past twenty years, investigations on rest have led to advances which, while recognized by physiologists, are not yet widely known and applied by practising physicians. That rest can vary in degree has been found by laboratory measurements, but it is also clearly indicated by clinical observations. The individual lying in bed may exhibit signs of activity

over his whole body or in one or more localities. The onlooker may note restless shifts of position or movements limited to a part such as one or more fingers or toes, perhaps with irregular breathing, or changes in facial expressions, including wrinkling, frowning, eye movements and rate of winking. The presence of activity, as indicated by these and various other clinical signs, evidently derives from failure of the skeletal muscles to relax. However, the signs of restlessness may not be apparent to the untrained observer, but restlessness and an emotional state may be detectable by appropriate instruments.

Contraction means the physiological shortening of muscle fibers, which is an active but reversible process. Relaxation is the lengthening of these fibers as they become inactive. If the state is maintained, we also call it relaxation; but if the muscle is habitually lazy, it would be more appropriate to call it "lax". It is well to bear in mind that all movements in the human organism derive from muscular contractions. Every act in which the individual engages is composed of contractions in one or another muscle or its parts, in series and combinations. Contractions of overt type, whether varying or steady, compose human conduct but also enter essentially into digestion, circulation, respiration and other vital functions. According to the character of the activity, the system chiefly involved may be the skeletal, the visceral or both. Participating in each of these functions are minute contractions demonstrable only with laboratory technic. If these contractions are slight but steady, the term *tonus* is applied. Contraction often can be recognized which is steady but too marked to be called tonus. For such contraction, the adjective *supertonic* or *hypertonic* seems appropriate.

It has been traditional in physiological textbooks to affirm that all muscle, when in a healthy state, exhibits the state of slight persistent contraction known as tonus. We can now state that this teaching, although it was universally accepted for decades, has not been confirmed. Skeletal muscles in healthy animals (dog, frog) as well as in man at rest may show a state of complete relaxation, as tested by the only precise means we have ever had — measurements of contraction-potentials.

Hypertonia can be recognized as more or less generalized or as more or less localized in one or more systems. When generalized in the skeletal musculature, the hypertonia is characteristically persistent in some individuals and disorders, while intermittent in others. Persistent or unremitting hypertonia occurs, we find, in marked hyperthyroidism, in a considerable percentage of cases of "essential hypertension" and in numerous nervous or tense individuals not afflicted with the above mentioned disorders. Intermittent hypertonia of the skeletal musculature is far the more common, perhaps characterizing most or all of the individuals who come to the doctor's office complaining of nervous or digestive disorders.

In irritable colon, mucous colitis, common forms of constipation and non-infectious diarrhea, the hypertonia would seem to be persistent all day long (and perhaps for the night) in more or less of the entire gastrointestinal musculature. There is evidence, also, that it is persistent in this system in many patients where skeletal musculature hypertonia is only intermittent. The spastic esophagus, stomach and colon are among the most common forms of abnormal physiology in the average urbanite today.

In "essential hypertension", the hypertonia commonly becomes persistent in the musculature of the smaller arteries and arterioles in later stages; but in earlier stages it is probably most often intermittent. In these earlier stages, according to experimental studies, the intermittent increased blood pressure often coincides in point of time with increase of skeletal muscle tonicity; while, when the individual becomes more relaxed, the pressure may return to normal limits.

Relaxation, whether *general* (which includes the entire body lying down) or *local* (limited to a particular muscle group or to a part) is *complete* if it proceeds to the zero point of contraction (tonus) for the part or parts involved and *incomplete* if it falls short of this. *Differential relaxation* is the absence of an undue degree of contraction in the muscles employed during an act, while other muscles not so needed, remain flaccid. Clinical relaxation may as a rule be called "systematic", "habitual" or "cultivated" and the meaning of these names will be obvious, but they will not apply in many

cases where relaxation is briefly used to aid in overcoming some acute or transitory disturbance.

Physicians not acquainted with the field commonly speak of "mental relaxation" as opposed to "physical relaxation." Laboratory investigations have shown that no such opposition exists. During any period of mental activity, ipso facto, there goes on certain physical activity, but, contrary to the beliefs which have been traditional for centuries, such physical or physiological activity is by no means limited to the brain. The doctor can get a clearer idea of the present conception if he will recall, for example, that the act of flexing or extending a part, say the right arm, involves both brain and skeletal muscles. Quite in the same way and to the same extent, what is commonly called "mental activity" includes brain plus muscle action in inextricably close combination. Conduct always involves complicated series and combinations of muscle plus brain activities; thinking and reflection are found to consist of minute activities in the muscular plus the nervous systems.

For this reason, muscular rest, if complete, necessarily includes mental rest. In lay vernacular, "the power of mind over matter" is a common expression. On the contrary, the "power of matter over mind" would more properly express the present medical viewpoint; but the terms "mind" and "matter" are inexact and are not suitable for medical contexts.

Every instance of transient imagination, reflection and other mental activity, when examined under appropriate conditions of laboratory investigation, has been found to involve specific acts in one or another group or groups of muscles. Inaction in the group or groups involved brought with it the absence of the specific mental act studied. It has seemed safe to conclude that muscular relaxation, if sufficiently advanced in certain localities, brings with it the diminution of mental activity, whether imaginative or reflective or emotional. Accordingly, true muscular rest can relieve the "mind." It is believed that this principle, if understood and effectively applied, can be of fundamental import not alone in general medicine but throughout psychiatry as well, in prevention no less than in "cure."

The "rest-cure" of Wier-Mitchell has gradually fallen into the discard among most physicians because of its failure to achieve lasting effects in conditions selected as appropriate for such treatment. Even temporary beneficial results often seemed wanting, for the restless patient confined for weeks in bed not seldom became increasingly restless and emotional. Evidently, he failed to relax for the very good reason that he did not know how. Wier-Mitchell himself scarcely stressed the matter of physiological relaxation. Indeed, in its present day sense, he was not familiar with it at all (contrary to current views). He did not even employ the word "relax," very often, for he was most interested in diet. This is shown by the title of his book which introduced the so-called "rest-cure" to most physicians. "Fat and Blood and How To Make Them." His patient, lying abed for weeks or months, was fed large quantities of milk, cream, eggs and other nourishing foods. To the consequences of such nourishment, rather than to relaxation, he ascribed the improvement which appeared in many of his patients. This view of Wier-Mitchell has failed to withstand the test of time. Individuals can be seen in any large clinic today who are well nourished, even over-nourished, but who are nevertheless highly neurotic.

Nor was this his only oversight regarding nutrition. Wier-Mitchell, although an excellent physiologist as well as almost the outstanding physician of the United States in his time, evidently was not fully aware of one point which we have learned since then; namely, that underweight in patients not suffering from wasting disorders is commonly due to habitual neuromuscular hypertension. It is common knowledge that muscular contraction requires a food source for the energies consumed; accordingly, it is but to be expected that if such contraction is habitually excessive, as occurs in many hypertense and neurotic patients, it will be difficult for them to put on weight. To be sure, if they are put to bed for weeks, as in a sanitorium, they can be "fattened up" in most instances; but upon their return to their work and their normal affairs, the fat tends gradually to fall off again, leaving them in their pre-sanitorium condition, so far as weight is concerned; excepting those instances where the passage of time occur-

ring in the forties or fifties, favors the development and retention of greater weight. On the other hand, I can report from clinical experience that the average patient, underweight or not, evidently changes in weight after a number of months of training to relax. At the stage when he shows signs of becoming more quiet and relaxed habitually, he commonly gains weight. This gain, effected while he continues at his daily duties, proves lasting, if he continues to maintain differential relaxation. In my opinion the relaxing treatment of underweight conditions is not alone more effective than the method of Wier-Mitchell but also would seem a more rational therapy than the use of insulin in patients whose carbohydrate metabolism is normal.

For weight increase, the habitual relaxation to be cultivated when lying down should be as nearly complete as possible in the skeletal and visceral musculature. Various differences exist between such complete rest, which can be cultivated, and the more common forms of incomplete rest, called ordinary rest. Some of these differences are as follows:

1. The metabolic rate is lower in the same individual under otherwise identical conditions, if the skeletal system is approximately at zero tension.

2. The knee-jerk (as well as any other reflex) is diminished or altogether absent during the time when relaxation is approximately complete.

3. The organism is quieter as a whole and in its parts.

4. Mental activity, including emotional states, dwindles or disappears with advancing general relaxation.

During a period of extreme muscular relaxation lying down, as contrasted with ordinary rest in the same posture, there is, then, some saving of caloric energy; but in itself, this saving obviously is not sufficient to account for certain marked differences in the consequences of incomplete rest as compared with intensive relaxation. For example, it is common experience that lying abed with insomnia fails to effect the same restoration against fatigue, exhaustion and disease as is seen after sound sleep; subjectively, the individual who has failed to sleep most of the night may feel more tired, according to his observation, than when he retired. The difference in caloric outgo, as is well known, is inconsequential in "restless rest" compared with restful sleep. Nor is the explanation to be found in some mysterious property of sleep which restores; for the individual who becomes generally relaxed in his skeletal musculature lying down, say for an hour, subsequently reports that he is well rested, even if he has not slept. Evidently, it is the final stages of muscular relaxation which count most, subjectively at least, although in passing through these final stages there is not in this itself a saving of any great expenditure of caloric energy. Yet on evidence which I have recounted elsewhere, it is precisely the relaxation of *residual tension* that is accompanied by the most marked fall of systolic and diastolic blood pressure, as well as by a relaxation of viscera, including the gastrointestinal tract. If the saving of caloric energy is not the source in which we should seek the explanation for these and other consequences of relaxation of residual tension, we may examine other possible sources. In this connection we recall that mental activities including emotional states evidently depend for their occurrence upon the presence of residual and other forms of slight contractions in the skeletal musculature, particularly including the muscles of the ocular and speech apparatus. As relaxation of these parts advances, it is found clinically that rest apparently becomes most effective. "Mental rest" accompanies "physical rest" according to this physiological procedure; and this may be one reason why general advance relaxation proves restorative.

Where it is desired to cultivate rest in present-day medical and surgical practice, the methods of cultivated relaxation are available. They can be employed in conjunction with sedatives, diet or psychotherapy in the effort to induce mental and physical quietude. But while such combination is possible, it is not always desirable. If the physician and the patient are willing to devote their time and attention to personal training for the benefit of the results to be secured, the use of progressive relaxation alone is recommended.

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BIBLIOGRAPHY

1. Wier-Mitchell, S., Fat and Blood and How To Make Them, Philadelphia, 1879.
2. Jacobson, E., and A. J. Carlson, The Influence of Relaxation upon the Knee-Jerk, Am. Jr. Physiol., **73:2**, 324-328, 1925.
3. Jacobson, E., Electrical Measurements of Neuromuscular States During Mental Activities. I. Imagination of Movement Involving Skeletal Muscles, Am. Jr. Physiol., **91:2**, 567-608, Jan. 1930.
4. Jacobson, E., Electrical Measurements of Neuromuscular States During Mental Activities. II. Imagination and Recollection of Various Muscular Acts, Am. Jr. Physiol., **94:1**, 22-34, July 1930.
5. Jacobson, E., Electrical Measurements of Neuromuscular States During Mental Activities. III. Visual Imagination and Recollection, Am. Jr. Physiol., **95:3**, 694-702, Dec. 1930.
6. Jacobson, E., Electrical Measurements of Neuromuscular States During Mental Activities. IV. Evidence of Contraction of Specific Muscles During Imagination, Am. Jr. Physiol., **95:3**, 703-712, Dec. 1930.
7. Jacobson, E., Electrical Measurements of Neuromuscular States During Mental Activities. V. Variation of Specific Muscles Contracting During Imagination, Am. Jr. Physiol., **96:1**, 115-121, Jan. 1931.
8. Jacobson, E., Electrical Measurements of Neuromuscular States During Mental Activities. VI. A Note on Mental Activities Concerning an Amputated Limb, Am. Jr. Physiol., **96:1**, 122-125, Jan. 1931.
9. Jacobson, E., Electrical Measurements of Neuromuscular States During Mental Activities. VII. Imagination, Recollection and Abstract Thinking Involving the Speech Musculature, Am. Jr. Physiol., **97:1**, 200-209, April, 1931.
10. Jacobson, E., Electrophysiology of Mental Activities, Am. Jr. Psychol., **44**: 677-694, Oct. 1932.
11. Jacobson, E., Electrical Measurements Concerning Muscular Contraction (Tonus) and the Cultivation of Relaxation in Man, Am. Jr. Physiol., **107:1**, 230-248, Jan. 1934.
12. Jacobson, E., Progressive Relaxation, Rev. Ed., Univ. of Chic. Press, 1938.
13. Jacobson, E., Variation of Blood Pressure with Skeletal Muscle Tension and Relaxation, Ann. Int. Med., **12:8**, 1194-1212, Feb. 1939.
14. Jacobson, E., Variation of Blood Pressure with Skeletal Muscle Tension and Relaxation. II. The Heart Beat, Ann. Int. Med., **13:9**, 1619-1625, Mar. 1940.
15. Jacobson, E., Variation of Blood Pressure with Brief tension, Arch. Phys. Therapy, **21**: 645-654, Nov. 1940.
16. Jacobson, E., Cultivated Relaxation in "Essential" Hyper- **25:10**, 1029, July, 1940.
 Voluntary Muscular Contractions, Jr. Lab. & Clin. Med.,

The story is being told of a young father who started to tell his 4-year-old son the tale of Robinson Crusoe.

"And one day he saw strange footprints in the sand," the father recited. "He was puzzled. For they weren't his footprints. He hadn't seen anybody else on the island. And this island was far, far away from all other lands. And he said to himself: 'Whose footprints could these be?'"

The youngster answered: "I know. Eleanor Roosevelt's."

—*Leonard Lyons.*

A PRELIMINARY REPORT ON THE ATTEMPT TO CONTROL TUBERCULOSIS AT THE CHICAGO STATE HOSPITAL

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AND

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A program has been instituted at the Chicago State Hospital for the possibility of alleviating the tuberculosis problem of the institution. This necessitated a complete change in the method of diagnosing the tubercular patient, the isolation of the tubercular patient, and the treatment of the patient.

The medical staff long recognized that there were many cases of active tuberculosis on the general wards, but due to improper diagnosis, lack of a tubercular ward, and incomplete follow-thru of the many patients after diagnosis, plus faulty transmission of reports or delay of reports, active cases remained on general wards that were over-crowded, and succeeded in trans mitting their infection to others. The medical staff had also recognized that when a patient was sent to the tubercular section, that the case was usually so far advanced that it was a terminal case, and not suitable for either medical or surgical therapy.

It was to correct the above problems, and to safe-guard the personnel of the institution that the present tubercular program was instituted and put into effect. To the present date, the portion of the program that deals with the diagnosis and isolation of the tubercular patient, except where unexpected change in personnel has occurred, the procedure has been instituted as a routine, and is functioning well. Equipment for intelligent active treatment has been purchased, and since the first of the year, the authors have made slow but sure progress in the active treatment.

A superficial survey some two years ago indicated that there were three sources for tuberculosis at the institution. There were active unknown cases of tuberculosis on the general wards, especially on the overcrowded wards, newly admitted cases with tuberculosis was

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definitely not a rarity, and a certain percentage of patients regardless of their present physical condition or living quarters would break down. A study of the records of the last two years will show that this superficial survey was substantially correct.

Because of the facilities of the institution and the type of patients dealt with, the authors decided to rely upon fluoroscopy examination of the chest and confirmation with x-ray films for the diagnosis of tuberculosis. Sputums, even in far advanced cases with cavitation, in most instances could not be obtained, that is, satisfactory sputums. Perhaps our experiences in trying to obtain this material should be recorded if only for a negative reaction. An attempt to obtain routine sputums was a failure except from a few cooperative patients. When an attendant or nurse was assigned to a specific case to obtain a specimen, it was not worth staining or concentrating because it was slavia, not the sputum desired. The same situation existed when the authors attempted to obtain the material themselves.

In order to gain full cooperation of the personnel of the institution, an attempt was made to make the institution tubercular conscious. All individuals that suspected a patient of losing ground physically, were encouraged to send such patients to the ex-ray room for examination of the chest. When a positive case was found by such method, usually one of the personnel attached to the tubercular work would advise the sender of the patient, and encourage him or her to be on the outlook for other such patients. It is very encouraging to know that this method was successful in making the general personnel tubercular conscious. The medical staff is given written reports of the pathological findings, they are shown the x-ray plates of positive cases, and are encouraged to seek all possible foci. Printed forms, self explanatory, in duplicate and triplicate are prepared for their convenience and cooperation.

The present program is as follows:

(1) All patients admitted to the institution received, in addition to their general physical examination, a fluoroscopic examination. If the chest is found to be fluoroscopic positive or suspicious, an x-ray is taken.

(2) All patients admitted with a tubercular process which can respond to pneumothorax are recorded and treated. Those having far advanced tuberculosis processes are segregated on a separate ward and receive special care and consideration for the other methods of treatment.

(3) All of the patients in the institution are fluoroscoped when they

a. show a weight loss of more than five pounds for two successive months;

b. Have an unexplained temperature elevation;

c. have a chronic cough;

d. if they complain of night sweats.

(4) When a case of tuberculosis is found on a general ward, all the patients on that ward are fluoroscoped as contacts.

(5) No tubercular patient is permitted on a general ward until his x-ray plate is tubercular negative and a temperature record shows him or her to be afebrile. Attempts to obtain sputums on these patients are tried, but unless the patient is fairly cooperative, satisfactory results are not obtained. For the reason that sputum obtained from un-cooperative patients usually consist of slavia and, therefore, are not reliable indications, we have adhered to the principle of keeping the patient on the inactive side of the tubercular ward until provisions will be made for a chronic inactive ward. In previous years, patients that were transferred from the tubercular ward to a general ward usually returned shortly after with a very obvious active tuberculosis.

In order to carry out provision number three of the above paragraph the following program was created:

1. Monthly weighing of patients are done routinely.
2. Weights are recorded on the weight record card kept on the wards.
3. The charge attendant prepares a list of all patients having a weight loss of 5 pounds or more for two successive months.
4. The supervisor receives copies from the wards, one of which is given to the ward physician and the other to the consultant in charge of tuberculosis.

FORM NO. 1
CHICAGO STATE HOSPITAL

Ward D1 Female Dr. Greenberg
Patients who have lost 5 lbs. within the last 2 months

Patient's Name	Card No.	Date	Weights Date

FORM NO. 2
CHICAGO STATE HOSPITAL
Chest Fuoroscopic Examination

Date WARD.....

Please make duplicate copy and send both copies with patients to X-ray department.

Patients with X mark are to be returned to X-ray department for chest plate.

Call X-ray department for appointment for chest plates before taking patients to X-ray room.

Make certain that the nurse or attendant that accompany the patients can identify the patients.

Date of appointment at X-ray room General Hospital.

Date Time A.M. P.M.

.....
Physician in charge of ward.

Patient's Name	Patient's Number	Weight	X	Remarks

.....
Physician

FORM NO. 3
CHICAGO STATE HOSPITAL
Fluoroscopic Chest Examination

Three Reports are to be made:
Original Copy - To Record Room
Copy No. 2 - - To ward Physician
Copy No. 3 - - To Examining Physician

.....
Ward Physician

Patient's Name.....No.....Ward.....Date.....

1 ☐ Negative Heart and Lungs
2 ☐ Suspicious Lungs, to have X-Ray Film of Chest
3 ☐ To be returned for Floroscopic Chest Examination
A ☐ Untidy B ☐ Uncooperative
4 ☐ Heart Enlarged
5 ☐ Aorta Aneurism
6 ☐ Positive for Pulmonary Tuberculosis
A ☐ To have X-Ray Film of Chest
B ☐ To be Transferred to Tubercular Ward

.....M.D.
Examining Physician

FORM NO 4
CHICAGO STATE HOSPITAL
X-Ray

Four Copies to be made:
No. 1 - To Record Office
Copy No. 2 - - To ward Physician
No. 3 - X-Ray Files

No. 4 - To Physician in Charge of Dept.

.....
Ward Physician

Patient's Name.....No.....Ward....Date....
X-Ray of
.....
.....
Findings
.....M.D.
Physician

5. All of the patients considered suspicious are fluoroscoped, and if the fluoroscopy is suspicious an x-ray picture is taken.

All employees who have been in contact with a tubercular patient, or who are employed on a tubercular ward are routinely x-rayed.

When a case of tuberculosis is found on a ward, all other patients on that ward are considered as contacts, and the entire ward is fluoroscoped. Active cases of tuberculosis are immediately sent to the tubercular ward, and in many cases, directly from the x-ray room.

When an x-ray picture is taken, it is studied by the physician in charge of tuberculosis, by the chest consultant, and the x-ray consultant; three opinions offer a greater opportunity for the proper diagnosis.

For the purpose of standardizing our routine, simplifying records, and faliciating treatment at the present time we have six printed forms, and as soon as additional needed equipment is installed on the tubercular wards, two more forms will be printed, a routine three month examination, and an active treatment form. For No. 1, there is a sheet on which patients who have lost 5 pounds or more within the last two months are recorded. From No. 2 is for appointments for chest fluoroscopic examinations and is self explanatory. (see form). Form No. 3 is the fluoroscopic chest examination report and the reports are made out in triplicate, one copy to the record room, one to the ward physician, and one to the examining tubercular physician. Form No. 4 is an x-ray plate report and this is made out in quadruplate, one copy goes to the record office, one to the ward physician, one is filed with the x-ray, and one goes to the tubercular physician. Forms No. 5 and 6 are for sputums and temperature and are self explanatory. (see copy of forms). With the above routine, it is unlikely for a tuberculosis patient not to receive adequate attention.

In all cases where there is doubt as to the diagnosis, every effort is made by a specially trained nurse to obtain sputum findings and temperature records. Three sputum examinations on separate days or attempts to obtain such is considered as a sputum examination. A temperature reading B.I.D. is taken for fourteen successive days. One copy of the sputum and temperature result

FORM NO. 5
CHICAGO STATE HOSPITAL

☐ Sputum Record for Tubercular Patients.

☐ Sputum Record for Suspect Tubercular Patients.

Two Reports are to be made:
Original Copy - - To Record Room
Copy to be Filed on Tubercular Ward

To be completed for all tubercular patients or suspect tubercular patients every three months. Three sputum examinations on separate days or attempts to obtain such is to be considered as sputum examinations.

Patient's Name
No. Ward.....

No.	Date	Patient Cooperative or Un-cooperative	Was Sputum Obtained? Yes	No	Date Sputum to Laboratory	Positive	Negative
.....		M.D.					R.N.

FORM NO 6
CHICAGO STATE HOSPITAL

☐ Temperature Record for Tubercular Patients.
☐ Temperature Record for Suspect Tubercular Patients.

Two Reports are to be made:
Original Copy - - To Record Room
Copy to be Filed on Tubercular

To be completed for all tubercular patients or suspect tubercular patients every three months. B. I. D. temperatures for 14 successive days is to be considered a temperature record.

Patient's Name
..... No. Ward

Date	8:00 A.M. Temperature	2:00 P.M. Temperature	Taken
Date	8:00 A.M. Temperature	2:00 P.M. Temperature	Taken

.....M.D.
.....R.N.

is sent to the record office and one remains on the tubercular ward.

A daily log book is kept in which fluoroscopy chest examinations and x-rays for chest plates are scheduled in advance on patients that are suspects. In this way we do not lose sight of any of the cases that require future examinations.

From January the second 1942 to March sixth, 1942 when the department was functioning well and the personnel was at its full quota, the following work was performed. Five hundred and fifty chest examinations were made, of which number one hundred and fifteen were weight losses, four hundred and thirty-five were contacts and new patients. Twenty-nine patients were transferred to the tubercular ward and five were transferred from the tubercular ward. Twenty-nine permits for collapse therapy and phrenic nerve surgery were sent, six aspirations, six pneumothorax treatments were given and eight phrenicotomies were done. Twenty-nine sputums were recorded.

At the present time, because of frequent changes and loss in our personnel we are somewhat limited in carrying out our active treatment. A difficult hurdle at the present time is the sound recommendation by the State Health Department, that the attendant or nurse must be thirty-five years of age or more, mantou positive, and x-ray negative.

The tubercular wards are divided into an active and inactive wing. Each wing is again divided into two parts. One section is for the tidy and cooperative patients and the other for the untidy and uncooperative patients. When the personnel permits, the active cases are fed in bed from an electrically heated food conveyor. The tubercular patients are given in-between meals and again after supper. This usually consists of eggnogs and malted milk mixed with vitamins. The patients are limited in their activities and

confined to their beds mornings and afternoons. All dishes are sterilized at 180 degrees for two minutes, using a special type of dish washer.

With the above routine, we at the Chicago State Hospital believe that we have removed contact tuberculosis from the general wards.

When the program was started there were seventy-five known cases of pulmonary tuberculosis confined to sections of the men and women's infirmary. Today there are two hundred and fifty cases of known tuberculosis, and in all likelihood with this intensive work, it will reach about ten percent of the population which at the present time is four thousand seven hundred and seventy two.

The records for the past two years are as follows:

1. 4012 fluoroscopies.
2. 977 x-ray films
3. An increase from seventy five to two hundred and fifty known tubercular patients — one hundred sixteen females and one hundred thirty four males.
4. 48 far advanced males, 40 moderately advanced, 3 insipient, 3 fibrotic and the remainder minimal. There are twenty seven far advanced females, 39 moderately advanced, 10 fibrotic, 3 pleural effusions, 1 insipient, and the remainder minimals. Our criteria for such diagnosis was taken from the 1938 classification of the National Tuberculosis Association which is as follows.

Minimal-Slight lesions without demonstrable excavation confined to a small part of one or both lungs. The total extent of the lesions, regardless of distribution, shall not exceed the equivalent of the volume of lung tissue which lies above the second chodrosternal junction and the spine of the fourth body of the fifth thoracic vertebra on one side.

Moderately Advanced. One or both lungs may be involved, but the total extent of the lesions shall not exceed the following limits:

a—Slight disseminated lesions which may extend through not more than the volume of one lung, or the equivalent of this in both lungs.

b—Dense and confluent lesions which may extend through not more than the equivalent of one-third the volume of one lung.

c—Any gradation within the above limits.

d—Total diameter of cavities, if present, estimated not to exceed 4 cm.

Far Advanced. Lesions more extensive than Moderately Advanced.

For the past two years the tubercular department of the institution has treated one hundred and sixty three male patients on the tubercular ward, of these three have been paroled home, five returned to general wards after complete observation which included repeated x-ray plates, temperature charts and sputum examinations. One was deported to another state, two were sent to the Cook County Tubercular Hospital as tuberculars but without psychosis, and there were 16 deaths. On the female ward we have treated during the same period of time 158 patients. Four were paroled home as improved and 5 were returned to the general wards. There have been 32 deaths on the female tubercular ward during this period.

Surveying the source of our tubercular patients from the general ward we observe that our patients are usually found in groups of other tubercular patients and this indicates contact cases. However, this is not entirely true as we have recently had a case who was fluoroscoped 6 months prior to her admission to the tubercular ward. During a routine fluoroscopy examination she was found to be a typical miliary tuberculosis of the chest and lungs, and expired three weeks after her transfer to the tubercular ward. This indicates the necessity for routine chest examination by either x-ray or fluoroscope as no signs of chest pathology were found by physical means. It is not unusual to be unable to find pathological signs in the examination of a chest by physical means.

From our records we found 23 positive male chest cases on the DW building, 52 in the CW building, 2 on the Farm ward, and 25 on new admissions to the institution of which only 8 came to us with a history of tuberculosis. Reviewing our source of female tubercular patients, we found 36 on the Horner building, 33 in the CW buildings, and 12 new admissions of which only 3 were known tuberculars. From the acute female hospital ward we received 9 tubercular cases.

In reviewing the type of mental patients that we have on the tubercular ward it is of interest to note that we have 95 cases of Dementia

Praecox of which 65 are of the Hebephrenic type, 11 catatonic, 8 paranoid, 1 simple and 8 of undetermined types. There were only 2 manic depressive cases, 4 traumatic psychosis, 10 cerebral arteriosclerosis, 8 mental defectives, 1 involutional psychosis, and 5 general paretics. The rest of the patients were of various mental classifications but not of significance.

On the female ward according to the mental classification there are 63 cases of Dementia Praecox of which 44 are Hebephrenic, 8 catatonic, 6 paranoids, 3 simples and two of undetermined types, 3 manics depressive psychosis, 4 involutional, 7 mental defectives, 4 alcoholics, 14 cerebral arteriosclerosis, 5 somatic diseases, 3 general paretics, and 3 epileptics.

The ages of our patients range from the youngest on the female ward of 24 years old to the oldest 89 years of age. This 89 year old woman was 67 on admission to the institution. On the male ward our youngest is 21 years old and the oldest 78 years of age. We find that age is not a barrier to tuberculosis and that is most commonly found in a group age of between 35 and 55 years on our wards.

In reviewing the occupations assigned to the patients that are on our tubercular ward we find that they were formerly assigned as patient workers in all of the branches of our industries such as the commissary, laundry, O.T. center, employees dining room and ward workers.

At the present time we are completing four hundred and fifty fluoroscopic chest examinations per month. By July 1943, we hope to be able to report on our results of the active surgical treatment of our tubercular cases.

SUMMARY

1—The institution has been made tubercular conscious.

2—A program has been established at the Chicago State Hospital by which it is believed that cases of tuberculosis will be practically eliminated from the general wards.

3—There is a systematic follow-up on all positive or suspicious tubercular cases.

4—Self explanatory forms have been introduced in order to facilitate the records.

5—In the final report we shall state our experiences and results with active therapy of tubercular cases at the Chicago State Hospital.

DISCUSSION

Milton Goldberg, M. D., Chicago: I just want to raise a question or rather make a suggestion for some further elaboration of the excellent paper and the work which Dr. Greenberg and Dr. Edlin have done.

I have always been interested in the relationships on a diathesis basis between tuberculosis and some of our so-called functional psychoses and particularly I'd like to inquire whether he has noticed any relationship, for instance, between tuberculosis and schizophrenic psychosis.

My own experience is that schizophrenic phycosis is much more likely to come down with tuberculosis than your psychophrenic. It is not merely a matter of duration of exposure, because some of your patients have been in contact with chronic schizophrenics and still don't come down with tuberculosis.

Dr. D. Louis Steinberg, Elgin: I would like to say a few words about the administrative side of this particular problem. Dr. Greenberg and Dr. Edlin touched upon it.

As far as I know, in the Department of Public Welfare there is really only one institution that has a unit that is devoted entirely to the care and isolation of tuberculosis patients. Until such time as every institution has a completely isolated unit. the problem of control of tuberculosis in a psychiatric institution is fraught with considerable danger to the other patients.

I have seen institutions where the patient is in so-called isolation — say in an infirmary cottage with a day room barrier but I think anyone familiar with public health will disapprove any such isolation.

That is only one point of contact. The other is in the preparation of food, of linens for these patients, and so on. There is very little care taken in the isolation and sterilization of this contaminated material.

I think that unless the Department can take cognizance of that particular fact, we are going to have problems in controlling the spread of tuberculosis.

One other important factor: I know that none of the institutions are equipped sufficiently to handle all their tuberculosis problems on one ward. Dr. Greenberg mentioned that. So it becomes necessary to return some of these so-called arrested patients to the general population and before you know it they have become a source of infection — a much more dangerous source than the one that Dr. Lichtenstein mentioned.

Even in routine check-ups of three months, considerable damage may have already been done in the interval. A unit for arrested patients must be established and patients must be re-examined and not returned to the general population until they are absolutely free of any possible source of infection or until their lesion is arrested and they are no longer a source of danger. Continued attention and care must be given this problem otherwise it becomes uncontrollable.

Dr. Ellenore de T. Murphy, (Lincoln): In case patients are of such low grade mentality that they do not understand, are not cooperative, and when no sputum can be obtained from such cases, and you have clinical evidence, physical findings, x-ray, plus accompanying signs and symptoms of pulmonary tuberculosis, why must a patient be kept on wards until it, or they become terminal cases, and die shortly after admittance to a tuberculosis ward, simply because NO sputum was obtainable? What can be done to remedy this situation, and stop such practice? Besides the patient not getting proper care for the condition, it exposes other patients, attendants, nurses et al to the disease.

MEDIASTINITIS SECONDARY TO CERVICAL PATHOLOGY

3 Case Reports

GLENN J. GREENWOOD, M.D.

EVANSTON

In a consideration of mediastinal infections secondary to cervical lesions it is well to recall that the mid-sternal structures, for the most part, in their development descend through the neck region and, in so doing, fascia and potential fascial spaces of one region tend to become continuous with those of the other.[1] Thus dissecting suppurative lesions are more or less accurately directed from one locale to the other, though, as New[2] remarks, pus is not an inert fluid but rather possesses potent digestive enzymatic action capable of freeing itself from fascial confines.

Bichat[3] in 1801, Pearse[17] states, first undertook to study the neck's compartments. Burns[4] in 1811 gave them some consideration. But it was almost three quarters of a century later that a group of German investigators, Henke,[5] Konig and Riedel,[6] Soltmann,[7] Poulsen,[8] and Schmitt[9] presented the basic data upon cervical fascia and its influence upon the dependent spread of infection through its potential fascial spaces. Mosher,[10] Furstenberg,[11] and Iglauer[12] are laryngologists who have done their part in helping to clarify anatomical intricacies in these regions. The anatomical studies of Barlow,[13] Coller and Yglesias,[14] Furstenberg and Yglesias,[15] and Weintraub[16] have served to further enlighten us upon the inter-relationship of the cervical and mid-thoracic connective tissue structures.

The neck is made up of three big divisions. They are: a) the large posterior vertebral division; b) the small anterior visceral division, and c) the two flanking vascular-compartment divisions. The neck musculature may be divided into three layers. These are: the superficial trapezius and sternocleidomastoid layer, the antero-medial supra-and infrahyoid muscle layer, and the posterior vertebral-muscle-group layer. The fascia covering and connecting these structures may also be correspondingly divided into three layers. *First,* the deep cervical fascia which arises posteriorly from the ligamentum nuchae region, passes antero-laterally, splitting about the trapezius and sternocleidomastoid muscle, fusing with its fellow of the opposite side in the midline anteriorly to form a completely enveloping fascia of the neck. *Secondly,* below the hyoid bone this parent deep cervical fascia divides into two layers: the superficial splitting about the infrahyoid muscles to form its fascial compartment. It is limited laterally by the omohyoid's attachment to the scapula, and inferiorly by its attachment to the posterior surface of the sternum and clavicle. (Cervical suppurative lesions arising anterior to this muscle compartment are, by its inferior attachment, prevented from entering the mediastinum.) *Thirdly,* the deep layer of the deep cervical fascia below the hyoid bone is carried down upon the visceral compartment to form the visceral fascia. This fascia covers the cervical viscera, the thyroid and parathyroid glands, the trachea and the esophagus. That portion of this fascia laying in front of the trachea is called the pretracheal fascia. Continuing its course laterally from the visceral compartment, this fascia covers (and forms) the vascular compartment in the neck, and the aorta below. Where the aorta crosses the left side of the trachea, this fascia continues downward, enclosing the descending aorta. From the vascular compartment this fascia, with its pedicles, attaches to the transverse processes of the vertebrae to enclose the space anterior to the vertebral bodies, and by this enclosure forms the post-visceral space.

The fascia between the cervical visceral and vascular compartments is known as the alar

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fascia. It carries neurovascular structures from one compartment to the other. It derives its importance to us from the fact that we approach the postvisceral space through it, when doing a cervical mediastinotomy.

The visceral compartment extends from the basal skull region into the mediastinum and serves as a prominent pathway for extension of cervical infections into the midthoracic region. It enters into the formation of the pretracheal and postvisceral spaces. Between the pretracheal fascia behind and the deep layer of the infrahyoid muscle fascia in front Furstenberg and Yglesias[15] have described two secondary fascial offshoots arising from this pretracheal tissue. The first of these descend from the region below the thyroid gland to attach to the under surface of the sternum. It courses laterally, ending in the sheath of the internal mammary artery. This layer may also act as an important barrier to the descent of pus into the mediastinum. Immediately beneath this lays the thymic space which is bounded posteriorly by another fascia plane which encloses the innominate veins and the superior vena cava, ending below in the mediastinal pleura.

The pretracheal space with its lymphatic structure lays within the confines of the visceral compartment. It is bounded by the pretracheal fascia in front and the trachea behind. It may become involved by infection secondary to a thyroid operation or a tracheotomy. This, however, is rare. In performing a tracheotomy it is well to recall that after incising through the fascia enclosing the posterior surface of the infrahyoid muscle compartment, we enter a space continuous with the superior mediastinum. Here we may meet with an anamolous great vessel structure projecting upward, from the superior mediastinum below.

The vascular compartment, incorporating the carotid artery, internal jugular vein and vagus nerve, contains lymph nodes in its areolar connective tissue structure. Its relationship by way of the internal jugular vein to the lateral pharyngeal space makes this vascular compartment a highway to the mediastinum, for any infection involving this space. Such an infection may come from contaminated needles puncturing this space during a tonsil or dental operation, or from a peritonsillar, pharyngeal, parotid or submaxillary abscess invading this space. As Furstenberg[11] states, its fibrous connective tissue walls are thick and elastic, making it capable of much distension without rupture, which probably accounts for the ravaging effects of infection upon its contents.

Returning to the postvisceral space, we have seen its extent and note that the prevertebral fascia limits it posteriorly and the retrovisceral fascia bounds it anteriorly, while the vascular fascia with its pedicles bound it laterally. This potential space may be divided into three distinct portions: a) A superior or retropharyngeal portion extending from the basal skull region down to the cricoid level; b) a middle or cervico-thoracic portion which extends from the cricoid level down through the superior mediastinum to its junction with the posterior part of the inferior mediastinum, opposite the bifurcation of the trachea. Here the dense fascia about the trachea, bronchi, aorta and pericardium partly obliterates this space, and as Lambert and Berry[1] point out, granulating suppurative processes finding their descent barred, infiltrate through the broad ligaments into the lung substance by way of the bronchi and posteriorly along the endothoracic fascia producing roentgenographic findings interpretive of pathology in this region. The third portion of this space extends from fourth-fifth thoracic vertebral articulation to the diaphragm. It is not, as a rule, involved in cervical pathology's descent into the mediastinum. Suppurative processes here are drained from a posterior approach — dorsal mediastinotomy.

This postvisceral space is filled with an extensive areolar net-work which in its upper portion is richly supplied with lymphatic structure into which we at least get partial drainage from the nasal cavities, nasopharynx, faucial tonsils and middle ear. Weintraub[16] and Iglauer[12] have demonstrated important subdivisions of this area, pathologically involved.

It has long been noted that a retropharyngeal abscess tends to remain localized for a relatively long time before rupturing, thence extending into this portion of the mediastinum. Pearse[17] states that these abscesses tend to remain localized. The reason for this may be as shown by Weintraub[16] and demonstrated by Scheldrup[18] that the retropharyngeal portion of this space is

divided into an anterior and a posterior compartment by a perpendicular sheath which swings forward at the cricoid level, attaching to the posterior surface of this cartilage. It thereby prevents gravitation of this pus so confined inferiorly, but it may, as Scheldrup[18] states, produce a "capping of the aditus of the larynx." These cases lend themselves to incision and drainage by direct hypopharyngoscopy. On the other hand, a ruptured Potts or osteomylitic abscess may gravitate directly into the superior mediastinum.

Cervical lesions extending directly into the mediastinum by way of the lymphatics enter more often through the right superior mediastinum, the lymphatic structure here being much greater. Acute mediastinal lymph adenitis, as Ochsner and Debakey[19] state, usually subsides spontaneously. Only in those cases in which suppuration occurs or an infection becomes diffuse, is the prognosis grave.

We thus see how a variety of cervical suppurative lesions gain access by way of these potential spaces to the mediastinum. The post-visceral space remains the route most frequently invaded. In Pearse's[17] collection of 110 cases 70% entered the mediastinum by this pathway.

Neuhof[20] reports esophageal perforation the causative agent of mediastinal suppuration in almost 50% of cases studied. Neoplasms — however constitute the most common cause, (of esophageal perforation), while trauma ranks second. Trauma from without producing perforation causes a much lower mortality than from within, and, as Jensen[21] states, these cases present a more hopeful picture. However, in the last World War gun shot wounds of this viscus complicated by infection carried a high mortality. Stab wounds, operative wounds, ill-fitting tracheotomy tubes Holinger[25] lists as etiological offenders. However, foreign bodies provoke a great number of traumatic perforations. Tucker[22] and Clerf[23] report fatal cases of massive hemorrhage complicating safetypins in the esophagus.

Perforation of the esophagus with the esophagoscope is rare in trained hands if the esophageal wall is sound, Jackson[24] states. The left pyriform sinus and the cardiac portion of the esophagus are the two most common sites for this to occur.[25] "Find the lumen is the fundamental rule of safety."[33]

Symptoms and signs are both local and general. They vary according to the region involved, the acuteness, and the degree of involvement. They may result from irritation, suppuration or compression states.

Disregarding, for the most part, those mild esophageal and para-esophageal lesions incident to perforation of the cervical esophagus, and turning our attention to infection of the post-visceral space, we classify the infections into local, diffuse and phlegmonous. The local lesions are characterized by a paraesophageal cellulitis with a low-grade fever, leucocytosis, pain and difficulty in swallowing. Emphysema may or may not be present. This lesion may localize with abscess formation. It is more apt to follow a small or a delayed type of perforation. If the abscess increases in size, we may observe pressure symptoms. General symptoms become more marked and besides esophageal obstruction there may be dyspnoea and cyanosis resulting from tracheal compression. Those lesions invading the area between the esophagus and the trachea, where elasticity is less, remain more localized. Cough may be irritative or due to aspirated secretions. There may be invasion of the great vascular structures. McClay,[26] Lerche[27] and Wright[28] report abscesses dissecting *up* into the cervical region.

The diffuse type is practically always limited to the postvisceral space. Here perforation carries the deglutory filth and flora into an ideal anerobic cultural media resulting in a fulminating invasive infection of this space. Constitutional symptoms are those of shock and are manifested by marked apprehension, chills, high fever, bounding pulse, a stabbing pain upon swallowing, while later prostration sets in. Locally swelling, pain and tenderness are present. Emphysema is more objective in cervical perforations but more obstructive in thoracic tears. Jackson and Jackson[24] state that *it* may prove fatal by pressure or shock even without infection.

The phlegmonous type occupies a position between the local and diffuse lesions and may incorporate characteristics of both, but is far less marked.

The diagnosis rests upon the history and foregoing symptoms and signs. Fluroscopic study and roentgenograms, antero-posterior, lateral

and quarter lateral exposures are of inestimable value. Pohl,[29] Kornblum and Osmond[30] have emphasized the importance of the upright position in making roentgenograms. Lambert and Berry[1] and Holinger[25] emphasize the increase in depth of the postvisceral space with displacement of the esophagus and the demonstration of air (or gas) in the paraesophageal tissues. Roentgenography is of great assistance in following the course of the infection.

Seldom does treatment exact such a nicety of judgment. Opinions concerning management are still at considerable variance, depending upon individual experience. If the perforation is small or latent there are those who believe in watchful waiting. Others believe in early external drainage. One thing is certain in those cases of fulminating *postvisceral* space infection complicating perforation of the cervical esophagus, early cervical mediastinotomy is the most important single therapeutic factor available. Mortality is about halved by this procedure, writes Burnett.

In 1901 von Hacker[32] proposed a prophylactic operation for packing the spaces in the neck. The rationale desired to prevent the dependent spread into the mediastinum from a cervical suppurative focus. This procedure was popularized by Marschik[33] (in this country). Palmer[34] and Glogau[35] have described it.

Current modifications have been presented by Furstenberg,[11] Heatly and Pearse,[36] Ochsner and Debakey,[19] and Pearse.[37] Furstenberg[11] advises that the approach be upon the right side. Especially is this true if the route of invasion has been by way of the lymphatics, for, as he writes, "to drain an infection through the tissues it has invaded, is, I believe, a surgical axiom." Other reasons for approaching from this side are that the right mediastinum is larger than the left, the lymphatic structure is much greater upon the right and the pleura and esophagus contact each other at a much lower level, behind the pericardium, upon this side.

In the approach to the mediastinum by way of the lateral aspect of the neck two routes may be used. The infrahyoid region may be divided into the supracricoid and infracricoid approaches. We recall now that that portion of viscerovascular fascia, extending from a point opposite the upper border of the thyroid cartilage down to the suprasternal notch, is called the neutral zone of the alar fascia, and that approach to the postvisceral space here is relatively free from danger.

The supracricoid approach is seldom if ever used for mediastinal drainage. It is best adapted for drainage of infection from the anterior portion of the retropharyngeal space per se, though the superior mediastinum, when suppuration is effected through this area, may be so approached.

The infracricoid approach is almost universally employed here. It is best utilized when the postesophageal portion of this space is to be packed prophylactically or drained therapeutically. Then too, through this approach the pretracheal space may be more readily reached and drained if infected.

Supportive Measures:

1. Posture — In these cervical esophageal perforations maintaining the patient at all times in the prone position until all danger from infection has passed is emphasized by Head.[39] Ochsner and Debakey[19] stress the importance of maintaining the patient in the Trendelenberg position *during* as well as after surgical drainage.
2. Nutritional balance is imperative. The esophagus must be put at complete rest. Intravenous medication should not be so prolonged as to further weaken the patient and make subsequent gastrostomy or the endoscopic passage of a nasal feeding tube hazardous.
3. Sulfonamid therapy appropriate to the cultured organism should be pushed to a high level. Mediastinitis is an anerobic pathological entity, consequently all oxidizing therapeutic measures should be instituted. Neoarsphenamine administration for Vincent-Plautt organisms is valuable. Strict oral hygiene is necessary.

CASE REPORTS

R. R., a 22 year old white male, developed a mediastinitis following the opening of an *alveolar abscess* at a dental clinic. Subsequent extraction of the infected tooth was immediately succeeded by a daily afternoon rise in temperature ranging from 100.2° to 100.6°, general malaise, a weight loss of five pounds, increased respiratory rate, a dry, persistent non-productive cough and a growing pain in the knee joints with stiffness involving the lumbo-sacral region. These symptoms were followed by a two-day period of intermittent hiccoughing at about fifteen minute intervals and spontaneous vomiting spells which had no con-

nection with eating. When admitted the patient's temperature was 101°, pulse 82, blood pressure 112/80, WBC 9,400. The gum at the location of the extraction was apparently healthy. X-ray examination revealed involvement of the mediastinum. Medical therapy was instituted. The patient was kept in the hospital for twenty-five days on rest, high vitamin and caloric diet, fluids and Iron & Ammonium Citrate (25% sol.) drams I t.i.d. He became afebrile during the second week of hospitalization and remained so until discharged, but the pulse rate continued to run between 90-100 until the last two days when it dropped between 80-90.

J. B., a white male, aged 55, was admitted for a pleurisy involving the left lower lobe on the posterior surface and possibly a portion of the diaphragmatic pleura on the same side. The patient first became ill a week prior to admission when he experienced all the symptoms of an attack of *la grippe,* sore throat, cough, chills and fever, associated, after three days, with a severe frontal headache and a sharp, continuous knife-like pain which extended over the entire abdominal region and localized, after several days, upon the left side, seemingly over the cardiac area. His temperature, 100.4° upon admission, fluctuated from 103.2° to 98.8° during the first week. Diathermy was applied to the left upper chest, but the patient, although not acutely ill, failed to improve. X-ray evidence indicated a large mediastinal abscess located behind the heart involving the median portion of the left chest. A thoracentesis (closed method) was done and about a pint of pneumococcus pus was removed. Dakin irrigations were instituted. Response was gradual but steady. Recovery was complete.

J. K., a 36 year old female, entered the hospital, having developed a mediastinitis following an esophagoscopy two days prior to admission. The patient complained of sore throat, dysphagia and tenderness upon palpation over the upper sternum. The neck had begun to swell on the left side. Temperature upon admission was 102°; WBC 19,400, X-ray findings were compatible with a mediastinitis and suggestive of a mediastinal abscess. An I. and D. of the abscess was done and much foul-smelling dark brown pus along the sides of the esophagus (posterior to the thyroid gland), *excavated.* Transfusions were ordered upon the 4th, 12th and 18th postoperative days. A temperature spike, 104.4°, occurred upon the 8th postoperative day. 62 gms. of sulfanilamide were administered during the first two weeks. The foul-smelling exudate diminished gradually; swelling and neck pain decreased. WBC dropped to 8,400. The patient was discharged at the end of seven weeks, but returned in two days, complaining of increased throat soreness and general malaise. Her temperature was 101°. This residual infection and associated slight fistula drainage responded to mild therapeutic measures and the patient was discharged two and a half weeks from readmission date, recovered.

BIBLIOGRAPHY

1. Lambert, A. V. S. and Berry, F. B.: The Mediastinum: Paths of Extension of Infection from Focus in Mediastinum. Arch. Surg., **14**: 261, 1927.
2. New, G. B. and Erich, J. B.: Deep Infections of the Neck. Internat'l. Abst. of Surgery, **68**: 555, 1939.
3. Bichat, X: Anatomie Generale. I. Paris, Brasson, Bagon and Cie, 1801. Quoted from Pearse 1938.
4. Burns, A.: Observations on the Surgical Anatomy of the Head and Neck, 1811. Quoted from Charpy 1912.
5. Henke, P. J. W.: Beitrage zur Anatomie des Menschen mit Beziehung auf Bewegung. Leipzig: C. F. Winter, 1: 12, 1872.
6. Konig, F. and Riedel, B.: Die entzundlichen Processe am Hals und die Gerschwulste am Hals. Deutsche Chirurgie, Vol. 36, 1882.
7. Soltmann, O.: Die Ausbreitungsbezirke der Congestions—Abscesse bei der Spondylarthrocace der Kinder. Jahrb. f. Kinderh., **7**: 267, 1874.
8. Poulson, K.: Ueber die Facien und die interfascialen Raume des Halses. Deutsche Ztschr. f. Chir., **23**: 223, 1886.
9. Schmitt, Adolph: Die Fascienscheiden und ihre Beziehungen zu Senkungs—Abscessen. Munchen: J. F. Lehmann, 1893.
10. Mosher, H. P.: The Submaxillary Fossa Approach to Deep Pus in the Neck. Tr. Am. Acad. Ophth., **34**: 19, 1929.
11. Furstenberg, A. C.: Acute Mediastinal Suppuration. Tr. Am. Laryng., Rhin. & Otol. Soc., **35**: 210, 1929.
12. Iglauer, S.: Surgical Approaches to Deep Suppuration in the Neck and Posterior Mediastinum. Arch. Otolaryng., **21**: 707, 1935.
13. Barlow, D.: The Surgical Anatomy of the Neck in Relation to Septic Lesions. Jr. of Anat., **70**: 548, 1935.
14. Coller, F. A. and Yglesias, L.: The Relation of the Spread of Infection to Fascial Planes in the Neck and Thorax. Surgery 1: 323, 1937.
15. Furstenberg, A. C., and Yglesias, L.: Mediastinitis, Arch. Otolaryngol., **25**:539, 1937.
16. Weintraub, J. D.: A New Anatomic and Functional Systemization of the Connective Tissues of the Neck, the Peripharyngeal and postvisceral Spaces. Arch. Otolaryng., **33**:1, 1941.
17. Pearse, H. E., Jr.: Mediastinitis Following Cervical Suppuration. Ann. Surg., **108**: 588, 1938.
18. Scheldrup, E. W.: Personal Communication. Surgical Anatomy of the Neck; Am. Acad. Ophthal. & Otolaryng., 1940 graduate lecture.
19. Ochsner, A. and Debakey, M.: Pyogenic Mediastinal infections, Their Significance to the Otorhinolaryngologist. Annals of Otology, Rhinology and Laryngology, **48**: 747, 1939.
20. Neuhof, H.: Acute Infections of the Mediastinum with Special Reference to Mediastinal Suppuration. J. Thoracic Surg., **6**: 184, 1936.
21. Jensen, D. R.: Wounds of the Esophagus. Am. J. Surg., **45**: 275, 1939.
22. Tucker, G.: Spontaneous Perforation of the Aorta from an Open Safety Pin in the Esophagus, with Fatal Hemorrhage. Occuring in a Child, Seven Months of Age, During the Passage of the Pin Through Esophagus and Gastro-Intestinal Tract. Annals of Otology, Rhinology, and Laryngology. **41**: 1228, 1932.
23. Clerf, L. H.: Safety-Pin in the Esophagus. Arch. Otolaryng., **24**:282, 1936.
24. Jackson, C., and Jackson, C. L.: Bronchoscopy, Esophagoscopy and Gastroscopy. W. B. Saunders Company, Philadelphia, 1934.
25. Holinger, Paul H.: Complications of Esophageal Perforations. Annals of Otol., Rhinol., & Laryng., **50**: 680, 1941.
26. McClay, N.: Jour. Laryng. & Otol., **38**: 518, 1918.
27. Lerche, W.: Surg., Gyn., & Obst.: **84**: 511, 1925.
28. Wright, A. J.: Jour. Laryng. and Otol. **49**: 175, 1934.
29. Pohl, R.: Zur Diagnose der eitrigen Mediastinitis. Med. Klin., **31**: 1106, 1935.

30. Kornblum, K., and Osmond, L. H.: Mediastinitis. Am. J. Roentgenol., 32:23, 1934.
31. Jackson, Chevalier: Pitfalls in Insinuating the Esophagoscope. Annals of Otol., Rhin., and Otol., 45: 1109, 1936.
32. Von, Hacker: Zur Operativen Behandlung der Perioesophagealen und Mediastinalen Phlegmone nebst Bemerkungen zur Technik der Collaren und Dorsalen Mediastinotomie. Arch. f. klin. Chir., 64: 478, 1901.
33. Marschik, H., and Voge, H.: Fremdkarper in dem Oberen Luft und Speisewegen mit Besonderer Berucksichtigung der Gesaphagotomie. Wien, klin. Wchnschr., 22: 1405, 1901.
34. Palmer, F. E.: Descending Abscess in the Neck. J.A.M.A., 83: 2067, 1924.
35. Glogau, O.: A Typical External Operation for Abscesses Descending from the Upper Air Passages and the Base of the Tongue. Laryngoscope, 32: 529, 1922.
36. Heatley, C. A., and Pearse, H. E.: The Management of Perforations of the Cervical Esophagus. Ann. Otol. Rhin. and Laryngol., 41: 1235, 1932.
37. Pearse, H. E., Jr.: The Management of Infections of the Missouri State Med. Assn., 35: 69, 1938.
Neck and Their Complication: Mediastinitis. Jour.
38. Head, J. R.: Surgical Indications in Perforations of Esophagus by Foreign Bodies. Am. J. Surg., 42: 266, 1938.

SOME EVALUATIONS OF CONSTITUTIONAL VERSUS ACCIDENTAL FACTORS IN MENTAL DISEASE

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In a broad sense, diseases may be said to be the result of an interplay of two fundamental factors: First, constitutional (that which is set or established) and, second, accidental (that which befalls). The term "constitution" is here used to cover the factors of race, family and personal heredity, pre-natal growth, the innate structure of the nervous and endocrine systems, and body configuration.

The two factors may operate in pure form or may operate jointly, the accidental being superimposed upon the constitutional. In some cases the constitutional factors alone operate, as in myopia, hemophilia, Huntington's chorea, amaurotic family idiocy, while traumatic loss of eye or limb, hydrophobia or teniasis illustrate the operation of accidental factors with no apparent influence of the constitution upon the cause, development or termination of the disease process. More frequently, however, there is an interplay of these two factors giving a somewhat complex picture of morbidity. Thus in tuberculosis in an asthenic individual we have a nearly equipotential operation of both factors, while the same disease in a deep chested person may be due to favorable environment. Likewise, carcinoma of the uterus in a virgin spinster would more probably be due to purely constitutional factors than an epithelioma of the lip in an inveterate smoker.

Recognition of the part played by each of these factors is of extreme importance for the proper evaluation of the etiology, course, prognosis and especially of the treatment of a given disease process. Nowhere is this more true than in mental disturbances, whether they be psychoses, neuroses or psychopathic personality.

Ordinarily the attitude of the patient and his family is antagonistic towards consideration of constitution as being of material importance in the etiology of the disease. They protest against insinuations of flaw in the stock from which they come and invariably mention some forebear who lived to be ninety and died of perfect health. On the other hand, the most absurd environmental factors are brought forth to explain the disease.

The tendency to overlook constitutional factors in disease is clearly illustrated by the fact that in our medical curriculum no organized course is offered on the medical aspects of heredity and constitution. Consequently physicians are almost as ignorant of constitutional factors as their patients and tend to lay exclusive emphasis on the accidental factors, frequently entirely neglecting the constitutional. After the storm now raging in Europe subsides, perhaps the only tangible contribution which race purists in polyhybrid Prussia will have made to medical thought will lie in the prominence which they ascribe to heredity as a fundamental factor of human infirmities. This growing tendency of today is well expressed by Besancon[1] who says: "Important as etiology is, nevertheless it must cede place in a great many morbid processes to the reactive modalities of the terrain of the individual and his temperament which in the last analysis can be considered responsible for the majority of pathological disturbances."

The striking feature of neuropsychiatric disorders is that here constitutional factors play an important part more frequently than in somatic disease. This no doubt is due to the fine specialization of structure and function of the neuraxis so that a slight structural deviation from normal may have a tremendous bearing on the

functioning of the part. For example, a horseshoe kidney will not necessarily cause the patient to have a disturbed urinary secretion, but agenesia of the corpus callosum may have a tremendous effect upon the psychomotor functioning of the individual.

The following list of some of the universally accepted hereditary disorders will illustrate the obvious importance of hereditary factors: Friedreich's ataxia, Huntington's chorea, Thomsen's myotonia congenita, aplasia axialis, cerebellar disease, muscular dystrophies, myotonia congenita, periodic family paralysis, hemeralopia and a host of other conditions.[2] Of the borderline diseases, the epilepsies and migraine admittedly have a strong constitutional factor, as evidenced especially by recent electro-encephalographic studies of relatives of epileptics. Statistics also point out that approximately 30 per cent of feeble minded persons have feeble minded siblings or parents, and that when both parents are feeble minded the incidence of the defect reaches 90 per cent in the offspring.

In the class of functional psychoses, the manic depressive group is most obviously characterized by familial occurrence and its transmission usually takes place as a dominant characteristic.[3] According to statistics gathered by Luxemburger, manic depressive psychosis occurred in 12.7 per cent of siblings of manic depressive patients and in 24.4 per cent of children of manic depressive patients, while the incidence of the psychosis in the general population was only 0.44 per cent.[4]

According to the same author, schizophrenia occurs in 7 per cent of siblings and in 16.4 per cent of children of schizophrenics, while the average incidence in the cross-section of the population was only 0.85 per cent. While manifest schizophrenia is recessive, the schizoid character is inherited as a dominant characteristic.[5]

It is also not difficult to find evidence of hereditary influences in the psychopathies. Psychopathic stigmata are said to be transmitted as a dominant characteristic. Furthermore they are common in neurotics, and neurotic behavior is well distributed in the psychopaths. Frostig states: "Here (in psychopathy) certain constitutional characteristics, certain aspects of personality are inherited as a dominant characteristic. They appear with such a force that environmental and educational influences are able to affect in but a slight degree the development of the personality. Their constitution according to the term used by Kahn is rigidly set." He quotes a case described by Gaupp in which a child from a family with tendencies towards pathological lying, stealing and vagrancy was adopted by a wealthy family and was brought up under most favorable conditions. This child began to steal, lie, and displayed a tendency to run away at the same age as the other children of that family.

The question of transmission of neurotic tendencies is a much more difficult one to determine because neurotics, being within the very limits of normal, present no striking physical or psychic evidence of hereditary features. But extensive psychiatric observation of neurotics and familiarity with their environment have led psychiatrists to consider transmission of neurotic trends a fact, even though the proof at present available is indirect and inadequate. According to Sadler,[6] 90 per cent of neurotics in his experience show evidence of hereditary transmission. He calls neuroticism "deficiency of emotional resistance." Kolle[7] maintains that there is no such disease as neurosis, just as there is no such disease as paralysis; there is only a readiness or susceptibility to a neurotic reaction (neurotische Reactionsbereitschaft). Jefferson, at the recent Milwaukee meeting of the Central Psychiatric Society stated that every mother of his cases of child obsessions was neurotic, and that he never found an obsession where the parents were healthy.

No clear relationship has been observed between the physical types and the neuroses. This could have been expected since neurotic individuals approach the normal closer than those with any other psychic disorder and might, therefore, be expected to favor mixed types. It may, however, be stated that neurotic behavior is more frequent in the asthenic leptosome types. And what is an asthenic leptosome but a person who chronologically has become a man while physically remaining a boy? This physical immaturity may be but the somatic counterpart of an emotional immaturity that characterizes the adolescent. Psychologists tell us that a boy reaches his intelligence peak at the age of fifteen

to eighteen years, a time when he is still far removed from emotional maturity.

Concerning the normal individuals, it is a matter of common observation that not only are the physical and emotional types inherited, but also intelligence and special talent. The slight effect of environmental factors upon intelligence is proved by records of children in orphanages where as great a variation in the I. Q. is observed as in the general population, while identical twins reared under different environmental conditions show a striking similarity in the I. Q.[8]

If there is basis for the general opinion that heredity is responsible for the phlegmatic character of the Swede, the romantic impulsiveness of the Spaniard, the fine esprit of the Frenchman or the financial genius of the Jew, it would not be an exaggeration to state that constitution is of equal importance in the production of the so-called functional psychic disturbances, since there is an imperceptible gradation from the normal to the psychically pathological in individuals of different races, tribes and families. Let those who contend that climatic, dietary and other environmental influences are of greater importance, take a trip from Texas across the Rio Grande or consider the marked differences not only in stature but in character between the stolid Swede and the alert Norwegian. Historically, the most striking example of the relative unimportance of environmental factors is the brilliant intellect of the ancient Athenian as compared with the brutal sensibilities of his neighbor, the Spartan.

When we consider the pleomorphic range of psychic disturbances one feature stands out as common to all of them: Some sort of an emotional change. Neuroanatomists and neurophysiologists have demonstrated that the diencephalon and particularly the thalamus and the hypothalamus are the seat of those activities which deal with sensation, feeling, mood, general emotional and instinctual drives. The thalamus may be regarded as the organ which imparts the feeling tone to cortical activity. As the great internode[9] in the course of all sensory pathways, it in turn is in intimate connection with all portions of the cortex by way of its stalks or peduncles. Especially prominent is the frontal peduncle joining the thalamus to the frontal lobe. This lobe is regarded as the seat of the higher intellectual faculties and of those composites of experience which constitute personality. It has the dominant control of all behavior reactions. Tilney and Riley[9] speak of the archeal current of feeling tone arising from the midbrain, pervading all of the higher faculties and coloring them with pleasure or displeasure. If this influence becomes expanded too extensively in consciousness it becomes the basis for production of "that extensive group of nervous maladies known as the neuroses and the psychoses."

The hypothalamus, as the end brain of the autonomic nervous system, controls those organ functions which act as somatic concomitants of emotional change, namely heart action, respiration, vasomotor, and sweat activity, sleep rhythm, etc.

In a normal individual ordinary or even moderately extraordinary cortical activity does not appreciably influence diencephalic, autonomic activity, and similarly changes in the autonomic function are not ordinarily registered upon the cortical perception centers. This means that there is a certain definite threshold which must be reached to permit a perceptible diffusion of cortical activity into the diencephalon to influence its centers and vice versa. It is not difficult to demonstrate that this threshold varies widely in different individuals. I have seen this phenomenon repeatedly demonstrated in cardiac patients. A "nervous" woman will suffer great anxiety over an occasional extrasystole or palpitation, while another patient with an organic heart disease and with a serious type of arrhythmia may remain totally unaware of the heart action until his dying hour. The difference in reaction to labor pains is another common example.

The phenomenon in which the threshold for thalamocortical and corticothalamic stimuli is abnormally low may be called diencephalocortical and diencephalo-autonomic dysrrhythmia, which is analogous to the concept recently introduced in epilepsy. This concept may be regarded as the anatomophysiologic basis of neurotic readiness or susceptibility. We may speculate that such a process results from abnormal diffusion of impulses or excessive permeability or sensitivity of the pathways, a sort of thalamic dominance conceivably a physicochemical defect in the

insulating mechanism. The thalamus probably has the same relation to orderly cortical activity as the cerebellum has to motor functions.

This hypothesis has considerable support in clinical experience. In early multiple sclerosis there is a loss of protective myelin sheaths occurring frequently first in the brain stem and interbrain. Here the resemblance to certain types of neurotic behavior may lead to difficulty in differential diagnosis. In both conditions there may be an intention tremor, nystagmoid movements, hyperactive reflexes, vertigo and emotional instability with outbursts of weeping or laughing. In organic lesions of the frontal lobes, involvement of the corticothalamic pathways leads to an unwarranted euphoria not unlike that occurring in hypomanic or manic states, and I have seen a case of general paresis diagnosed by a good neurologist as catatonic stupor. Furthermore, manic depressive types of general paresis are well known and, according to Schube,[10] occurred in 69 per cent of 300 paretics studied by him. The close similarity of catatonic picture to certain types of striatal disease is also well recognized.

Freeman and Watts,[11] following the work of Egas Moniz, have shown by direct experiment on neurotic and psychotic patients that in their technic of prefrontal lobotomy by cutting through directly across the frontothalamic connections, profound emotional alterations are produced. These were characterized by abolition of apprehension, anxiety, hypochondria, nervous tension and initiative, and production of "an emtionally flattened, euphoric, lazy, good-for-nothing drone, who nevertheless, is quite relieved of all his doubts and fears and lives on from day to day in a state of cheerful indifference."

Disturbances in time and space relationships a sort of loss of "local sign" or a feeling of unreality, occur in lesions of the temporal lobe as evidenced by *déjà ra* and *déjà vécu* phenomena. It may be not entirely coincidental that those forms of schizophrenia in which the most severe breaks with reality occur should also be characterized primarily by auditory hallucinations, also presumably a concern of the temporal lobe.

Violent diffusion of stimuli may be the mechanism of Jacksonian epilepsy and perhaps through the autonomic nervous system of idiopathic epilepsy. If idiopathic epilepsy as described by Yakovlev is a storm in the vegetative nervous system and if the diencephalon is concerned principally with neurotic and psychotic manifestations, then it would be clear that the method of shock therapy attacks the process at its source. This is particularly true in insulin therapy which, whatever its rationale, produces its most marked objective effect on the autonomic nervous system.

It has been said that hysteria can simulate all sorts of organic diseases and one may hold with equal justice that the converse is also true; namely, that all sorts of neurotic and psychotic symptoms may be simulated by organic disease.

One of the great contributions of Freud and his followers was in the sphere of early childhood behavior. They found that, even more so than in the case of primitive races, child behavior strikingly resembles the behavior of psychotics. It is said that in the normal development of a person he must pass through a psychotic stage and that psychotic behavior is normal for the infant and child. Emotional instability, flight of ideas, increased psychomotor activity, negativism, suggestibility, verbigerations, neologisms, perseverations and repetition phenomena, seizures of rage and panic, exhibitionism, and many other symptoms so common in psychoses constitute the normal behavior of childhood.

Parallel with these psychological differences between the child and the adult are anatomical differences in the brain structure. According to Mellus[12] no cells of the brain are fully developed at birth. The increase in volume of a cortical cell during the development of the cell body, nerve fiber and processes varies greatly according to location and function. Even more striking are the results of studies in myelinization carried out by Flechsig, Vogt and others. According to them, the first fields becoming myelinated are the thalamic sensory projection fields, starting with the olfactory areas, the paleocortex and the archicortex. Then follow the projection areas of the neocortex such as the central region, calcarine area and Heschl's convolution. The last in order to myelinate are

Flechsig's areas 34, 35b and 36 in the region of the supramarginal gyrus, prefrontal and lower temporal areas respectively, the regions of most advanced psychic and intellectual faculties. Thus a child at birth with only thalamic projection fibers medullated can be considered at least from the point of view of myelogenesis predominantly a thalamic animal.

If then the development of mental disorders depends upon a constitutional susceptibility organically determined, certain of the concepts of the psychoanalytic school should be reexamined from this point of view. The psychoanalytic school in its therapy disregards practically completely constitutional factors. It appears to confuse the symptoms and the precipitating factor for the disease itself. Pathoplastic mechanisms are confused with pathogenetic factors. Certain of the so-called traumata of early life, such as the "catastrophe of birth," witnessing of the "primal scene," oedipus complex, castration fear, etc., are the common experience and heritage of mankind. They precipitate neuroses only in those individuals who have the constitutional readiness to develop them. In discussing the psychic conflicts of children Frostig states,[13] "Once more we must remark that generalizations concerning the importance of these states in the developmental phases of every childhood have not been confirmed. It does, however, appear certain that within the limitations of certain constitutional types such as the schozoid, the hysterical or the compulsive the complexes described by Freud do occur."

The therapeutic value of laborious reconstruction of the dynamics of a given neurotic symptom is highly questionable when the constitution responsible for it remains unalterably fixed. Even if we "remove" a given symptom by the process of psychoanalysis, the readiness to react neurotically under subsequent stress remains and will reappear under new symptoms. This explains the recurrence of symptoms and anxieties which bring the patient back to the analyst after an apparent "cure." The usual explanation given is that there are still certain unresolved conflicts in the deeper layers of the unconscious requiring further analytic "working through." And thus 100 hours, 200 hours, 300 hours and 600 hours are piled up in the records and the patient remains a neurotic. The leopard still retains his spots.

Psychoanalysts assert that they alone are properly trained and have the proper perspective required to manage neuroses. Alexander[14] states "Psychoanalysis deals with psychological facts and tries to influence psychological processes by psychological methods. Therefore, by definition psychoanalysis should be excluded from medicine." He further elaborates this thesis with the statement: "The psychodynamics approach makes possible the intelligent and systematic influencing of pathological mental processes, that is to say a causally oriented psychotherapy." Orthodox psychoanalysts further make three sweeping claims which have not been substantiated clinically, namely that there are purely psychological factors; that analysis can produce a cure, and that it can cause a permanent change in the total personality.[14]

Once in the course of an informal discussion Dr. Favill remarked that his chief objection to psychoanalysts was their dogma of infallibility: "If you do not accept *my* interpretation it is because of *your* resistance." It would seem that in addition to this, psychoanalysts desire to usurp the power of reconditioning the germ plasm which required uncounted generations to evolve and which had been crystallized long before the patient lay on the psychoanalytic couch. It is with a feeling of guilt that Alexander grudgingly admits the constitutional basis of schizophrenia. He states, "The early origin of schizophrenic symptoms allows us to make an etiological postulate that in schizophrenic psychoses the inherited constitution generally plays a more important role than in neuroses. It is difficult to imagine that external influences alone are responsible for this early weakness of the ego."

More charitably inclined towards constitutional factors is Freud himself. In discussing thumb-sucking he voices the following opinion:[15] "Not all children suck their thumbs. It may be assumed that it is found only in children in whom the erogenous significance of the lip zone is constitutionally reinforced." Speaking of constitution and heredity, he says "In the first place we must mention here the congenital variation of the sexual constitution upon which the greatest weight probably falls but the existence

of which, as may readily be understood, can be established only through its later manifestations and even then not always with great certainty We can also imagine certain variations of the original disposition that even *without further aid** must necessarily lead to the formation of an abnormal sexual life. One can call these 'degenerative' and consider them as an expression of hereditary deterioration."

Psychoanalysts contend that their method is not one of simple suggestions but a scientific approach to the dynamics of psychic disturbances. Perhaps the fault lies with the term "suggestion" which should be augmented by another term "substitution." The patient in developing a symptom and the physician in removing it both suggest the substitution of a more acceptable somatic symptom or an idea for the disagreeable psychic conflict. For example, in anxiety neurosis there is a substitution of cardiac, gastric or other somatic complaints for an emotional tension, while in the treatment the analyst substitutes a "cause" for the symptom, such as a desire to kill father so that one may possess mother. The patient at first rebels furiously and, then, accepting the interpretation, emits a sigh of relief: "No wonder my heart was beating so hard. Anybody's would if he wanted to do anything like that."

It is not the purpose of this paper to deprecate the value of psychoanalysis as a therapeutic method. Its value has been demonstrated and is reasonably accepted. But so is the psychotherapy of the family physician, the Jungian, the Adlerian, the Stekelian, Mary Baker Eddy, the Holy Virgin of Lourdes, blarney stone and the African medicine man — each in its proper milieu. Where there is legitimate basis for dispute is in the aims of the orthodox psychoanalysts. That part of their problem which deals with the dynamics of psychopathology, i.e. the understanding or explanation of the evolution of mental symptoms, has been fruitful and, although a great deal of the superstructure will in time be discarded, much of permanent value will remain. The principal objection is to their contention that they are able to effect a cure of neuroses. Minute pathological description of a tuberculous process is still far from a cure. Since neuroses are a reflection of a neurotic personality constitutionally determined like myopia or pes planus, I believe that such an aim, while laudably ambitious, is a vain attempt.

The aim of psychotherapy should be the same as that of cardiology in treatment of heart disease. One does not attempt to cure valvular defects. One merely tries to adjust the patient's life and work to his cardiac potentialities. In psychotherapy we are also dealing with a constitutionally handicapped individual. We must study all aspects of his total personality in order to teach him to conduct himself with least harm to himself and the community, to enhance his value to his fellow men and to avoid, if he cannot overcome, life situations which lead to disagreeable emotional tensions and the consequent lowering of efficiency. We must concede that the patient, as a result of a constitutional dysrythmia of his emotional mechanism, will remain with this handicap as long as he lives just as a myope, a cardiac or a flat foot must indeed remain with his. It is perhaps this fundamentally unmodifiable constitutional factor in psychic disturbances which has been responsible for the marking time of psychotherapeutic progress so far behind somatic therapy. Workers soon discovered a way to arrest general paresis which is largely accidentally determined but in matter of the so-called functional psychoses not even the surface of the therapeutic rock has been scratched.

With this limitation of the psychotherapeutic aim in view, it is useless to go into a laborious "deep analysis," except for purposes of research into the psychodynamics of human psychology, as when in disturbances of the thyroid gland we place an occasional hyperthyroid patient in a metabolism chamber. Psychotherapists should not boast of the number of hours which they spend with the patient. Rather the aim should be to develop such a technic (which, of course, must vary in detail with each individual case) that the patient may regain his psychic comfort in the shortest possible time. The physician may rest assured that in six months, a year or later the patient will return to him or to another doctor with the same or another problem whether superficially or "deeply" analyzed and however thoroughly "synthesized."

* Italics mine

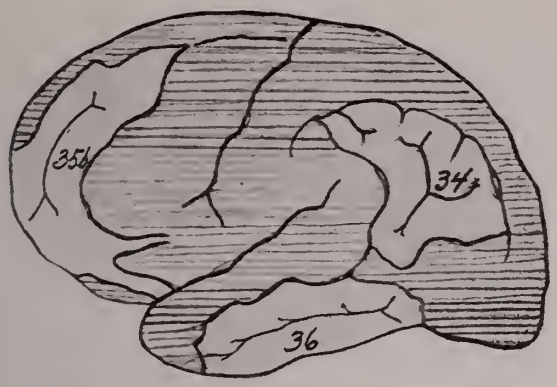


Figure illustrating myelinization. Unshaded areas are last to myelinize. (After Flechsig)

We must never lose contact with the material, the organic. Psychological research must be correlated and integrated with material investigation. The solution of neuroticism must be sought in the study of the relative differences in the anatomophysiologic sphere in the nervous system of normal and neurotic individuals. Every psychiatric or intelligence investigation should be accompanied by an inventory of the individual's emotional equipment. An A.Q. (affect quotient) should be elaborated as well as an I.Q. As the driving force of the personality the former is probably more important than the latter. A move in the right direction would be to combine intelligence testing and psychiatric examination simultaneously with temperament studies, Rorschach tests, cardiovascular studies, respiratory and skin changes such as sweat secretion, temperature changes, and electrical resistance. "Purely" psychological and theoretical speculation of "purely" psychological problems quickly leads to a standstill and barrenness of effort. Let us keep clear of medieval dualism. We must never lose sight of the basic principle of biology that organic concomitants are a *sine qua non* of all biological activity and we must seek an organic basis in every phenomenon of human behavior, no matter how distant its solution may appear for the time being. The axiom *mens sana in corpore sano* is still valid

SUMMARY AND CONCLUSIONS

Disease processes have been described as arising from constitutional and accidental factors acting independently or in variously combined proportions of each other.

Evidence was adduced in support of the theory that heredity and innate constitution are the most important factors in predisposition, susceptibility or readiness to functional psychic disorders and far outweigh accidental factors.

An anatomical basis for functional psychic disorders has been postulated as a diencephalocortico-autonomic dysrhythmia.

In view of these premises it is maintained that a cure of a neurosis is impossible with the present methods of therapy but merely a temporary removal or alleviation of symptoms by a suggestive-substitutive method, and perhaps a prevention by proper extension of the scope of mental hygiene.

Neurotics should be regarded as handicapped individuals with a poorly developed emotional equipment and the aim of psychotherapy should be to lead the patient through life stresses despite the handicap and to prevent exposure of his nervous system to undue situational strains. It would perhaps be profitable to eliminate entirely the unfortunate term "functional" from psychiatric nomenclature. The term "constitutional" would be a more logical one.

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BIBLIOGRAPHY

1. Jacquelin, Andre: Directives en Pratique Medicale; Besancon, Preface. 1935. Masson et Cie, Paris.
2. Jelliffe and White, Diseases of the Nervous System, 1935, p. 29. Lea & Febiger, Philadelphia.
3. Frostig, Jakob: Psychjatrja, 1933, Ossolinski Pub. House, Lwow, Vol. 1, p. 205.
4. Kolle, Kurt: Psychiatrie. 1939, p. 184. Urban & Schwarzenberg, Berlin und Wien.
5. Frostig, loc. cit.
6. Sadler: Theory and Practice of Psychiatry. p. 431, 1936. The C. V. Mosby Co., St. Louis.
7. Kolle, loc. cit. p. 107.
8. Guilford, General Psychology, 1939, p. 531-ff.
9. Tilney, Frederick and Riley, Henry A.: The Form and Function of the Central Nervous System, 1938, Paul B. Hoeber, p. 506.
10. Schube, P. G.: Emotional States of General Paresis, Am. J. Psychiat. **91**:625, Nov. 1934.
11. Freeman, Walter, and Watts, James W.: Intellectual and Emotional Changes Following Prefrontal Lobotomy, Third Neurological Congress, Comptes Rendus, 1939, p. 773.
12. Kappers, C. A., Huber, G. Carl, and Crosby, E. C.: The Comparative Nervous System of Vertebrates, 1936, Macmillan Co., N. Y., Vol. 2, p. 1660-1661.
13. Frostig, loc. cit. Vol. 1, p. 143.
14. Franz, Alexander: The Medical Value of Psychoanalysis, 1936, W. W. Norton and Co., N. Y.
15. Freud, Sigmund: Three Contributions to the Theory of Sex, 1930, Nerv. and Ment. Dis. Publish Co., N. Y.

A REVIEW OF AMBLYOPIA EX ANOPSIA

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Amblyopia ex anopsia and its relation to industry may well command our attention in times like these. Those cases that a few years ago were the responsibility of the parents or doctor or both, may today be a factor, small perhaps, but still worth attention, in this national emergency.

Other factors, too, have recently aroused us to a greater sense of obligation to the patient with a functionally amblyopic eye. Many have felt that improving vision in these cases may be ill-advised, due to the anisometropia sometimes associated. The promising outlook for the future of practical aniseikonic studies on private patients and the prescription of aniseikonic lenses may alter this viewpoint.

MINIMAL VISUAL REQUIREMENT

	Without & With Correction	
Large Chicago Electrical Corp.		20/30 - 20/40
Three Large Railroad Co's.		
Classes "A" & "B" Enginemen	20/30 - 20/40	20/20 - 20/20
Class "C" Conductors, etc.	20/30 - 20/40	20/30 - 20/20
U. S. Civil Service Post Office Service		20/30 - 20/30
Driver's License		20/40 - 20/100
Army Draftees	20/200 - 20/200	20/40 - 20/40

To recall a few facts that most of us already know, I have listed the visual requirements in several fields of endeavor. These have been labelled anonymously on request of the companies. Most of the occupations affected by the Workmens' Compensation insurance will require a minimum of 20/50 corrected visual acuity.

Amblyopia Ex Anopsia Is Characterized By:

1. Functional impairment of vision in one or both eyes.
2. No demonstrable pathological lesion.
3. Vision not improved by correcting ametropia.
4. Strabismus may be associated.

Amblyopia, as we shall refer to it here, implies functional impairment of the visual faculty of generally one, seldom both eyes. There are no demonstrable pathological lesions. Correction of the refractive error does not improve the vision. There may or may not be an associated strabismus.

There seems to be little agreement as to the exact central vision typical of this condition. To avoid controversy, let us think in terms of vision somewhere between 20/70 and finger counting.

Like many other vague phenomena, amblyopia ex anopsia has been variously defined and classified. Guibor[1] has listed the types of amblyopia apparently on the basis of their response to treatment. The first type found in young children responds spontaneously and completely on correction of the ametropia. This, states the author, is not a true amblyopia. The second type in Guibor's classification, responds to occlusion of the fixing eye. The third type is not amenable to treatment.

Abrahams' Classification Of Amblyopia Ex Anopsia

A. Congenital Amblyopia.

B. Acquired Amblyopia.

1. Passive suppression (Ametropia)
 a. Bilateral
 b. Unilateral
2. Active suppression
 a. Bilateral
 b. Unilateral (Squint)

In the classification which Abraham[2] offers, the *passive suppression* is a type of amblyopia which he believes is associated with anisometropia. The *active suppression* is associated with strabismus. The congenital and bilateral amblyopias relegated to a rather important place in this grouping, are still only presumptive.

In arriving at this classification 1,400 cases were reviewed of patients examined under cycloplegia and in whom the refractive error was no greater than one diopter in any meridian; in these cases no pathologic changes were demonstrable. In only one case in this group was the vision in either eye less than one.

In A Group Of 400 Consecutive Cases

1. Showing no demonstrable pathology;
2. With 1.75 diopters or less in any meridian of either of both eyes; and
3. In which the visual axes are parallel.

There were three cases with less than 20/25 *in either eye.*

Presented before the Section on Eye, Ear, Nose and Throat, 102nd Annual Meeting Illinois State Medical Society, Springfield, May 19, 1942.

In our review of 400 cases, using 1.75 diopters as a maximum refractive error in any meridian of either eye, only three patients had a corrected vision of less than 0.9. No squint cases were included. In one case, the right eye was emmetropic while the left required +1.75 cylinder axis 165. All the cases with less than 1.0 vision had been retinoscoped under cycloplegia.

Using the above group as a control, a similar group of cases showing no pathology and having at least 2.00 or more diopters difference in refractive error in the two eyes revealed this interesting fact: in 24 of these cases, or 6.0 per cent, the vision in one eye was less than 20/50. J. Ziering[3] feels that anisometropia may be the main cause of amblyopia; that the child before the ocular movements are guided by fusion, uses the eyes alternately but prefers one eye if the refractive state of the other is such as to make its use more difficult. Thus amblyopia develops through disuse during the first 6 months of life. In all of these cases only one bilateral amblyopia was found.

Bilateral Amblyopia
White, female, 47 years of age.
Refraction Under Cycloplegia:
O.D. +1.00 () +4.50 axis 130 = 20/200
O.S. +1.50 () +4.00 axis 65 = 20/200

The patient was a female, age 47 years. Had never worn glasses. Refractive error, under cycloplegia was:

R. +1.00 () +4.50 axis 130
L. +1.50 () +4.00 axis 65

Vision remained 20/200 in each eye without or with correction. This, our one case of bilateral amblyopia, has no definite diagnosis made. We lost contact with the patient following the above studies. From the vague history and uncertain field we have suspected malingering or possibly an hysterical amblyopia.

In 25 squint cases including all types, we found 18 in which the deviating eye was amblyopic. All of these have been followed closely over a period of several months and the results of treatment carefully tabulated.

In 25 Cases Of Squint Of All Type

1. Eighteen cases of uniocular amblyopia.
2. Twenty of the cases under 12 years of age.
3. Three alternators; three accommodative esotropias.
4. Two cases with macular choroidal lesions.
5. One case with refractive error.

O.D. +4.00 () +1.75 axis 90 = 20/200
O.S. +3.25 sphere = 20/20

6. Fifteen cases of amblyopia accounted for only by the squint.

Twenty of these cases were 12 years of age or younger. Three were true alternators: three were young accommodative squints, with only occasional convergence. This may explain the six cases in which no amblyopia was found. Two of the group had macular choroidal lesions. In another case, the refractive error could have been a factor in the amblyopia. In the remaining 15 cases, no other factor except the squint could be found to account for the amblyopia. If Young's[4] suggestion that "the incidence of squint is increasing" is correct, our problem with the management of amblyopia may proportionally increase. There is the occasional amblyopic eye in which we see no trace of pathology; the refractive error is small or possibly emmotropic; the visual axes parallel. Our first interest in these cases is in differential diagnosis; we begin to think of the other possible causes of an amblyopia. In our differential, several things including a good history, a field of vision, and a careful fundus examination often aid. Can it be definitely established that the vision has been poor in this eye over a long period of time? Finally, observation of response to treatment over a few weeks may be necessary to finally rule out a definite pathological basis for the amblyopia.

It is thought that many of these cases may have had an inflammatory, traumatic or vascular disturbance in the macular area. All traces of this may be lost. Often in children, only a fleeting glimpse of the macula is obtained, and a small even significant trace of pathology may be easily missed. Examination of these maculae with the Friedenwald or a similar ophthalmoscope may take many amblyopias out of the realm of functional.

In this connection should be mentioned one of the several amblyopias which we have misclassified. After a complete workup of a unilateral squint case 8 years of age, we found the correction shown.

JOHN SMITH

Age	Vision	Refractive Error
8 years	20/200	—1.50 () +2.00 axis 60
	20/20	+1.50 () +0.75 axis 90

Choroidal macular lesion found after two months of treatment.

There was good central fixation. The fundi were normal. We gave a fair prognosis and proceeded with our treatment. After one month, vision in the amblyopic eye was 20/100 —. Treatment was continued another month but with no improvement in vision. After dilatation, a faint but definite crescent-shaped choroidal lesion was found in the macular region. This was an old lesion and was quite definitely missed at the first examination.

Disregard of factors such as these has, no doubt occasionally thrown the management of functional amblyopia into disrepute.

Fundamentally, then, our cases of amblyopia which are truly functional are due to disuse. We are not interested in debating the issue as to relation of amblyopia and the causation of strabismus. Many have with Verhoeff[5], accepted both sides of this issue as true. We have seen that in 25 cases of squint, of all ages and types, 18 unilateral amblyopias occurred. Fifteen of these responded to treatment. Assuming that this therapeutic test is the final verification of our diagnosis, and that only 15 of these cases should be placed in the group of functional amblyopias, 60% of our squint cases in this group could be said to have a functionally amblyopic eye. Zimmermann[6] reports that from a group of 150 patients with strabismus, sixty-eight cases, or 45%, had a disturbing amblyopia, which in 18 amounted to 1/60 of normal vision.

The following grouping is offered as a practical, working classification:

A Classification Of Amblyopia Ex Anopsia

I. Amblyopia associated with squint.
 a. With anisometropia
 b. Without anisometropia

II. Amblyopia associated with anisometropia

III. Idiopathic functional amblyopias.

In this latter group are placed all those cases which are associated with neither squint nor anisometropia.

Thinking of specific cases in terms of this grouping may occasionally aid in determining the prognosis.

Response Of Groups To Therapy

I. Amblyopia associated with unilateral squint

ZIMMERMANN'S CASES

In 68 cases, 20/30 + vision obtained in 62.

GROUP REPORTED ABOVE

In 18 cases, 20/30 + vision obtained in 16.

II. Amblyopia associated with anisometropia

In 12 cases, 20/30 - vision obtained in 5.

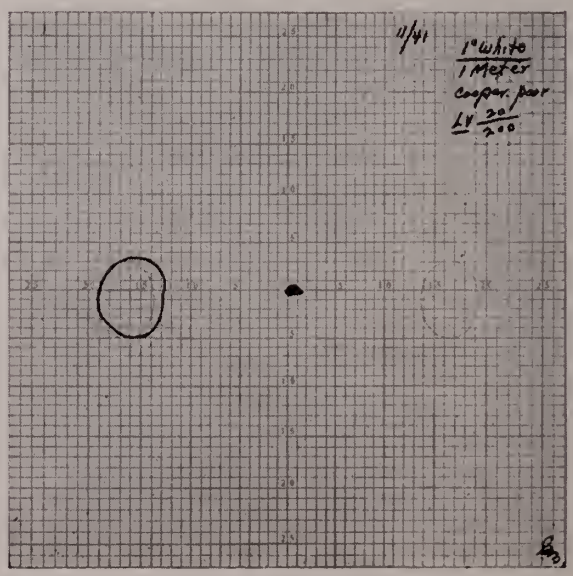
III. Idiopathic

In 4 cases, 20/30 - vision obtained in 1.

In group I, the results following treatment in squint cases, both with and without anisometropia are shown. In group II, the percentage of successes is markedly less. The smaller number of cases in group III may be a reflection of our effort to eliminate the idiopathic amblyopias from the functional group. No conclusion should be drawn from so few cases, but the inference seems to be a decidedly bad prognosis in this latter group. If our classification is of any value whatsoever, then, we can immediately after examination, group our cases and have some idea of the therapeutic result we may expect.

Any discussion of etiology is hardly complete without a mention of prevention. Young[7] believes that the average age at which most of these cases are seen is around eight years. A much earlier diagnosis is, as we all know, desirable if a good percentage of results is to be obtained.

The mechanism of amblyopia is variously described. Most investigators agree that a central scotoma or area of macular suppression exists. Whether this results from a peripheral or central inhibition, or both, is widely debated. Accord-



ing to Travers[8] the suppression is most marked at the center and fades toward the periphery. Harms[9] describes the scotoma as consisting of a "small stable and a larger labile part. The stable part corresponds to the 'blocking', and the labile part, to the impulse of inhibition. The latter disappears when the fixing eye is covered." This conception may aid in understanding the varying perimetric measurements obtained. Pseudoscotoma is a term suggested by Abrahams[2] in contradistinction to those genuine scotomas of retrobulbar neuritis, toxic amblyopia, etc.

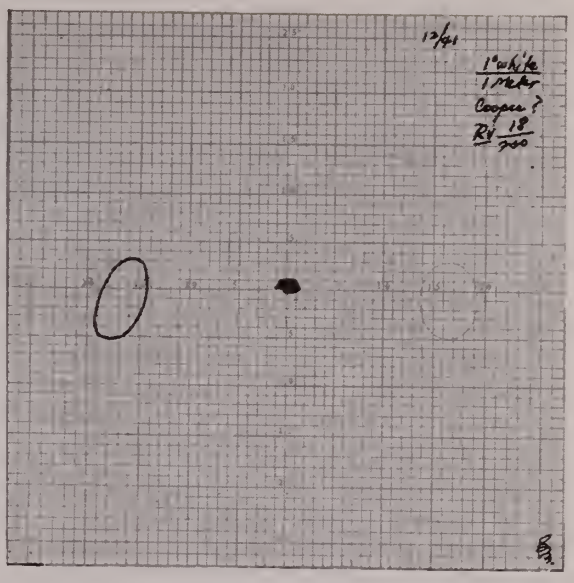
The greater percentage of the cases which we have studied were in the younger age groups. Despite this, we have attempted on many of these patients, to demonstrate the central scotoma by monocular perimetry. The uncertainty of our results would allow us to say, only, that there exists in most of these cases, a varying sized, but generally small, roughly round central scotoma. By binocular stereoscopic methods, Uhthoff[10] was able to demonstrate 2 to 6 degree scotomas on 50% of 100 patients, elminating all with vision less than 1/6.

In none of these cases can ophthalmoscopic changes or anatomic imperfections be demonstrated. The color and light sense of the whole retina are preserved. Vogt,[11] for these reasons, places the seat of amblyopia ex anopsia in the brain and not in the eye. Harms[9] assumes that there is a preformed inhibitory mechanism, the impulses for which arise in the supracortical sensory centers for associative combination, descending by way of the visual paths to become active in the ganglion cells of the retina. Amblyopia results from a continuous inhibition by this mechanism. By measuring the action potential in the optic nerve of an excised eye and by use of the electroretinograms, Best[14] has shown that inhibitory impulses may arise from the retina itself.

For a summary of the pathogenesis of this amblyopia, Duke-Elder[13] expresses it tersely:

"....since the habitual lack of facilitation of the higher nervous paths will result in their employment with difficulty when occasion should require, useful vision in this eye may be functionally suppressed. In this way there will develop an amblyopia ex anopsia."

The practical aspects of this central scotoma seem to be illustrated in one of our cases. The



area of supposed suppression in this case varied from what we had seen before. The scotoma tended toward a linear rather than circular form. There was some question as to cooperation, and the field was retaken on second visit, but with a similar result. You have noted from the illustrations and discussions that the scotoma expected should be generally small and approximately round. The patient was dilated again, and a close study of the macula revealed a faint, streak-like choroidal lesion, traversing the macula. This had been over-looked at the first examination.

Treatment of the amblyopic eye aims at stimulation of the macular and perimacular regions. Beard[14] has well-labelled many of the things we shall mention under therapy, as "platitudes" to the average oculist. That, possibly, is too true. These simple procedures in therapy are so platitudinous that the instruction to the parents and patient are often left in the hands of the secretary — orthoptist, who perfectly capable though she may be, cannot ofttimes carry with her remarks the prestige necessary to cause a mother to devote the watchfulness and hours essential for a good result. And when this patient returns for regular check-ups, it should undoubtedly require the time and patience of the doctor. All of us have heard from the patient or parent the statement of the family physi-

cian that "he will grow out of it." I wonder if our casual conduct of some of these cases may have filtered back to him through the same channels?

At least three things are necessary to a reasonably amount of success in the therapy of this condition. First, the utmost cooperation of the parents, or those in charge of the patient, must be enlisted. We say parents because the great majority of our cases are under 12 years of age. In the older age groups cooperation of the patient is often very uncertain. However, the possibility of improving vision may exist far beyond this age. Vogt[11] reports in a patient 44 years of age, a case in which occlusion of the central retinal vein of the left eye forced a converging and extremely amblyopic right eye into action. Useful macular function was obtained in spite of the patient's age. Abrahams[2] has stated that the response to proper treatment is usually favorable at any age. Secondly, a thorough understanding of the purpose and exact technique of occlusion by the parents, and third, an inordinate amount of patience on the part of the oculist.

After the refractive error had been carefully corrected in these cases, the sound eye was completely covered continuously with a regular eye-patch, held in place with adhesive or Scotch tape, in such a manner that the patient could not see around it.

Response Of Amblyopic Eye To Occlusion

No. Cases	Original Vision	Final Vision	Months of Occlusion
5	8/200 — 20/100	20/30 — 20/20	4 mo.
5	18/200 — 20/100+	20/30 — 20/20	3 mo.
8	20/200	20/30+	6 weeks

The time necessary to bring the vision to maximum level is shown. We attempt to continue this type of occlusion until the vision is the best possible to obtain. Generally, after about 2 months there is some discontent with the patch. At this stage one may substitute any type of vacuum cup occluder. The varying extent to which amblyopia is overcome is explained by Verhoeff[5] as "dependent largely on the age and the degree of persistence of subconscious visual suppression or by actual injury which this abnormal process may cause to the visual mechanism."

After the vision has attained its maximum level, the occlusion may be discontinued, except for one or two hours daily. If this period of occlusion does not hold the vision up to maximum level, the time must be increased. After visual acuity has reached 20/40 or 20/50, fusion training may be started. In one of our cases the patient failed to return for three months after the vision had reached 20/25. Occlusion had been discontinued. The visual acuity slipped back to 20/200, but readily responded to occlusion.

The amount of improvement of the angle of squint following this above procedure may well be one of the tenets in separating surgical from non-surgical cases. Surgery may be necessary at this stage to give parallel visual axes.

Pascal[15] and others have suggested that fusion training be started when the visual acuity reaches 20/200. We have tried this in several cases and believe that it is often a waste of time. Where the visual axes are not parallel, there enters the danger, too, of training on a false macula. After second grade fusion is obtained, we discontinue occlusion. The safe procedure, probably, is to check the fusion and visual acuity of these cases about every two or three months.

A follow-up study by Frieberg,[16] of seventeen cases shows that the improvement in vision obtained by treatment of amblyopic eyes held in those cases which had binocular vision; in other words, in those cases in which the eye was being used. If there was lack of parallelism of the visual axes, the visual improvement did not hold.

The use of atropine in the good eye is disapproved because of, (1) the long period of dilatation necessary; (2) frequent complaints of photophobia; and (3) the occasional reactions seen in younger patients.

SUMMARY

Several inferences seem justifiable from the above discussion:

1. This type of ablyopia is often associated with unilateral strabismus, and/or anisometropia.
2. The mechanism is poorly understood. Suppression, either central or peripheral or both, seems to be the basis. A small central scotoma is present in most cases.

3. Prognosis depends upon the group into which the case falls:
 Group I — Amblyopias show about 70% successes.
 Group II — About 50%.
 Group III — the prognosis must be guarded.
4. Treatment is not complete with only an increased visual acuity. Our final goal is the greatest degree of fusion possible.

REFERENCES

1. Guibor: Arch. Opth. V. 19 Part 1. 1938. pp 953-53. Strabismus due to or associated with amblyopia.
2. Abrahams: Arch. Opth. V. 12 Part 1. 1934 Amblyopia: a classification.
3. J. Ziering: Function & deviation of the squinting eye. Arch. of Ophth. 139:759 (Dec.) 1938. Abstra. by P. C. Kronfeld.
4. Young: Amblyopia ex anopsia in children. Brit. Jour. Ophth. 1940, V. 24, June, pp. 297-301.
5. Verhoeff: Visual phenomena and Strabismus. Arch. of Ophth. V. 19. Part 1. 1938. Pg. 685.
6. H. E. Zimmermann: Klin. Monatsbl. of Augenh. 100: 600 (April) 1938. Abstr. by K. L. Stoll.
7. Ibid No. 4.
8. Travers: T. AB., Suppression of Vision in Squint and its Association with Retinal Correspondence and Amblyopia. Brit. J. Ophth. 22:577. (Oct.) 1938. Abstr. by W. Zentmayer.
9. Harms, H.: Manner of Development of Unilateral Amblyopia. Trans. German Ophth. Society, July, 1938. Arch. Ophth. 1940. V. 23. pp. 417-419.
10. Haitz, E.: Central Scotoma in Congenitl and Strabismic Amblyopia. Klin. Monatsbl. of Augenh. 99:761 (Dec.) 1937. Abstr. by K. L. Stoll.
11. Vogt, Alfred: The Riddle of Amblyopia Ex Anopsin. Klin. M. of Augenh., 1939, Vol. 103, Sept. pg. 291 Abstr. by C. Zimmerman, Amer. J. Ophth. 1940.
12. Best: in discussion of Harms: Ibid No. 9.
13. Duke-Elder, Textbook of Ophthal. VI. 1037-1038 C. V. Mosby, St. Louis.
14. Beard, Hallard: Squint and Amblyopia, Ill. Med. Journ. Vol. 81 No. 4, Apr. 1942. pp. 326-328.
15. Pascal, J. I.: Arch. Ophth. Vol. 17, Part 1, 1937, pg. 752.
16. Frieberg, T.: Results of Treatment of Strabismus Amblyopia. Acta Ophth., 1936, Vol. 14, parts 1-2, pg. 63.

DISCUSSION

Dr. Walter Stevenson, Quincy: Dr. Morgan has brought to our attention a subject which has received too little consideration from the average eye physician. Off the record, I think it can be safely said that most eye men are as guilty as am I; being satisfied with correction of a cosmetic defect. If we would all realize that a deviating eye must, of necessity, lose vision and that it is our duty to preserve the physiological function rather than to correct a crossed eye the patient would be better served. Too often we are apt to tell the parent that "when the child is old enough we can correct the squint and everything will be all right."

Dr. Morgan's reference to the fact that visual defects act as a handicap both as to industrial and military service is timely. I know of no other way to maintain vision, in what would otherwise be an amplopic eye, than to use occlusion. Occlusion too often means to most of us, exercising the defective eye by an occasional patch on the seeing eye, which is inadequate. Occlusion must be total and must be continued over a long period of time, and in the case of squint, must be continued up to the very time of correction either by orthoptics or surgery. My experience has been somewhat limited in the use of orthoptics and perhaps I should plead guilty, as I presume many of you also might have to plead, that in the rush of time we do not give sufficient attention to these procedures. Dr. Morgan's objections to the use of atropine instead of occlusion are good ones, but my feeling about it is somewhat different. My objection to atropine is that it does no good except in accomodative squint.

There is no doubt that many cases of squint with amblyopia can be corrected from the cosmetic standpoint, without surgery, and I agree with the emphasis he has placed on that.

I have a feeling which I cannot substantiate, that those cases in which there is a definite relative scotoma are the cases which do not respond well, if at all, to treatment. I also have a feeling that the production of a new or false mocula is hypothetical and most authorities agree that they have never been able to demonstrate that such a phenomenon has been observed. Just what factors lie behind the production of those cases of amphyopia in which there are no objective findings remains unsolved. The probabilities are that the visual tract is somewhere congenitively defective. Those cases which can be improved from a visual standpoint are, undoubtedly, the only true cases of ambylopia exanopsia.

Dr. Morgan has not stressed the difficulties encountered with true alternating strabismus. These cases cause much trouble even though the cosmetic difficulty is corrected by orthoptics or surgery. True retinal correspondence is the thing we must strive toward in the treatment of all types of the condition, which is the subject matter of Dr. Morgan's paper. I want to congratulate Dr. Morgan for bringing to our attention a subject which is of vital importance and I hope that we may have another paper from him along the same lines at a future date. Unless the eye physician pays more attention to the correction of this defective visual condition, more and more cases will drift into the hands of the optometrist, who by the way, is being much more attentive to this difficulty and its correction than are perhaps many of us in the medical profession. Patience, intelligence, and persistence are necessary.

Dr. Palmer Good, Oak Park: Dr. Morgan's paper is interesting to me because it coincides with many of the results we have obtained at the Children's Memorial Hospital in Chicago. I would like to emphasize the importance of determining the visual acuity of children while there is still a reasonable good chance for improvement. We are able to determine the visual acuity of many children four years old. We have come to the conclusion that most children four years of age can be corrected to have 20/25 or 20/30 vision

so that in those children who have less than 20/40 vision in one or both eyes, it is imperative that the treatment of amblyopia be started.

The determination of visual acuity in these younger children is facilitated by using a self illuminated disc. In this way the child can see only one object at a time, is attracted by this illumination and can actually see it rotate from one position to another and "catches on" much quicker. The treatment of amblyopia differs somewhat in a clinic from private practice due to the cooperation given by the parents. In general complete occlusion of the better eye for at least one month, followed by lacquering of the lens before the better eye, will lead to as rapid an improvement as possible. If, after one month of complete occlusion, there is no improvement, I think it inadvisable to persist in further treatment. Atropine is used frequently in the better eye in the clinic and this is valuable because of the fact that it cannot be removed, while in private practice lacquer is less objectionable to the parents and usually their cooperation is good in regard to the wearing of the glasses.

Dr. H. L. Ford, Champaign: It is my impression that many cases of squint have as an etiologic basis anomalous retinal correspondence.

I would like to hear something about the question of bifocals and the advisability of using a +2.50 addition over the distance correction.

Dr. George E. Morgan, Bloomington (closing): I want to thank each of you for your discussions, particularly Dr. Stevenson for his kind remarks. I did not care to say too much about the central scotoma in these cases. In most of these children the results of a central field were questionable. Where I got definite scotoma, I often questioned its exact extent. However, I do believe that some sort of a central scotoma is present in most of these cases. There is a scotoma in at least 50 per cent of these people, according to the literature. Alternating strabismus is produced and this is a good sign treatment of the amblyopia has been thorough.

If an alternating squint results, it may be necessary to obtain parallel visual axes by surgery. If you do not produce parallel visual axes one of these eyes will again become amblyopic. If you cannot do it by occlusion or muscle training you must do it by surgery.

I am glad to hear Dr. Good mention the taking of vision in younger patients. I think we give up quickly in this attempt all too often. This is the time to get them, the time when treatment of the amblyopia will produce the quickest and probably best results.

Even before the age of 4 one can at least try to get a vision. We ask the mother to cut out a large E and make a game out of teaching the child this chart. The type of patient is important. Some parents would never successfully treat an amblyopic eye. This is especially true in dispensary patients. One out of 5 or 6 at the Infirmary would follow through, the rest will not.

Bifocals will help little until the visual acuity is improved. When the eyes are parallel at 20 feet and there exists a unilateral, abnormal convergence for near, we prescribe a 2.50 sphere bifocal segment for each lens.

FIND MEANS TO CONTROL MALARIA IN TREATMENT OF NEUROSYPHILIS

Investigators Determine When to Administer Thiobismol To Lengthen The Intervals Between Seizures Of The Disease

A solution to the problem of when to administer thiobismol so as to reduce the frequency of paroxysms or seizures of malaria when the infection is used as a treatment for syphilis of the central nervous system is reported in *The Journal of the American Medical Association* for June 19 by Martin D. Young, Sc.D.: Sol B. McLendon, M.D., and Roy G. Smarr, M.D., Columbia, S. C.

The three men explain that "one of the problems of the malarial therapy of neurosyphilis has been the need of a drug to reduce the frequency of the paroxysms without eliminating them altogether. Until recently no drug, including the common antimalarials (such as quinine), has demonstrated a reliable selective effect, the administration of the drug causing either no change of a total suppression of the paroxysms. In 1939 W. F. Schwartz found that thiobismol would convert Plasmodium vivax paroxysms from a quotidian (daily) periodicity to a tertian (alternate days) periodicity. Subsequently other workers confirmed this observation. However, the age (measured in the number of hours from the last fever peak) at which parasites are affected and therefore the best time to administer the drug have not been definitely established. . . ."

The principal species of malaria produce characteristic intervals between the seizures.

From their two year observations they say that: "It is possible, therefore, to change quotidian paroxysms of P. vivax to tertian by giving 0.1 or 0.2 Gm. of thiobismol, preferably the former amount, about twenty-four hours before or after the paroxysms to be eliminated. A convenient time to administer the drug is at the

fever peak. The quotidian occurence of paroxysms often taxes the patient so severely that it is impossible for him to undergo a full course of twenty paroxysms. Changing the paroxysms to a tertian occurence better enables the patient to withstand a full course of malaria. . . .

"Quite often quinine will not prevent the occurrence of paroxysms for several days after it has been started. It has been found useful here in terminating an infection to give an injection of thiobismol the day on which quinine is started. The thiobismol will usually prevent the occurrence of a paroxysm the following day. After that the quinine controls the infection.

"This combination of thiobismol and quinine might be found useful in malaria infections generally."

Their results with two other types of the disease, P. malariae and P. falciparum, were unsatisfactory.

NEW VACCINES MAY PROTECT MAN AGAINST TWO TYPES OF ENCEPHALITIS

The development of vaccines against the St. Louis and Japanese B types of epidemic encephalitis (sometimes called sleeping sickness) which were found effective in protecting mice and offer possibilities in protecting human beings against these diseases is reported in *The Journal of the American Medical Association* for June 19. The work was done by Major Albert B. Sabin, Medical Corps, Army of the United States, assisted by Carl E. Duffy, Ph.D.; Lieutenant Joel Warren, Sanitary Corps, Army of the United States; Robert Ward, M.D.; Lieutenant (jg) John L. Peck Jr., MC-V(S), U.S. N.R., and Isaac Ruchman, M.Sc., Cincinnati.

Major Sabin explains that "The St. Louis and Japanese B types of epidemic encephalitis occur in the late summer and early autumn and are caused by two immunologically distinct viruses. The most recent data favor the concept that these viruses exist in an animal reservoir from which they are transmitted to human beings by mosquitoes. Thus far the St. Louis virus has been isolated only in the United States and the Japanese B type virus in Japan, the Maritime District of the Far East of the Union of Socialist Soviet Republics and in 1940 in Peiping, China.

"At the suggestion of the Board for the Investigation and Control of Influenza and Other Epidemic Diseases in the Army, a study was undertaken to determine whether or not it may be possible to develop suitable and safe vaccines for the protection of human beings against these types of epidemic encephalitis. . . . The objectives of the present investigation were to find vaccines, consisting of virus rendered noninfective by physical or chemical means, which would be capable of immunizing animals against infection by a peripheral route, comparable to that obtaining in nature, within a relatively short time and by means of a relatively small dose. Since, if such vaccines could be found, their use for human beings would be considered only during epidemics, and since the total duration of epidemics caused by either of these viruses may not exceed a period of six to eight weeks, it was important (a) that these vaccines be capable of conferring protection rapidly, i. e., at least within a week, and (b) that they should retain the desired potency after storage for long periods of time. It is believed that these objectives have been achieved."

The vaccines developed by the investigators consist of uncentrifuged 10 per cent mouse brain suspensions in isotonic solution of sodium chloride in which the virus has been rendered noninfective by a 0.2 per cent solution of formaldehyde, the entire process of inactivation having taken place in the cold (2 to 3 C.).

The vaccines retained their original potency only when they were stored in the cold and properly treated to prevent undesirable reactions when used in human beings.

"Tests on human volunteers," Major Sabin says, "indicated that two doses of 2 cc. given three days apart could be administered without fear of local or systemic reactions and that this amount of vaccine contained enough antigen to stimulate the development of neutralizing antibodies in about 50 per cent of adults.

"It is conceivable that, in the face of a very severe developing epidemic of encephalitis proved to be caused by either one of these virus, it may be desired to test the effectiveness of such vaccines in protecting human beings against these diseases. It is obvious that no such tests will be possible unless sufficiently large amounts of these vaccines are prepared ahead of time and maintained under suitable conditions of stor-

age with repeated assays at appropriate intervals in readiness for such an emergency."

He says the Russians had a successful experience with a similar vaccine in protecting against the spring-summer tick-borne encephalitis.

SOCIAL INSURANCE IN THE UNITED STATES

1. *What are some forms of social insurance in the United States?*

(a) Federal government: Old age and survivors' insurance and unemployment insurance under the Social Security Act; war risk insurance; old age pensions and unemployment insurance under the Railroad Retirement Act and Railroad Unemployment Insurance Act.

(b) State: Several states have workmen's compensation funds; Rhode Island recently enacted a sickness benefit law.

(c) Insurance companies: Life insurance and annuities; accident and health insurance; workmen's compensation insurance; hospital insurance; auto liability.

(d) Cooperative insurance (employee benefit associations and labor unions): Life insurance and accident and sickness benefits.

(e) Hospital associations (Blue Cross): Hospital service.

(f) Medical associations: Medical and surgical care.

2. *What is the history of compulsory social insurance legislation in the United States?*

In 1916 and later, bills were introduced in several states proposing compulsory state health insurance (socialized medicine and cash benefits).

Attempts were made in the 1920's to establish state old age pensions and unemployment insurance.

The "Committee to Study the Costs of Medical Care" in 1927 made a report based on a survey of public health, medical expense, and loss of wages due to illness.

President Roosevelt in 1933 appointed a "Committee on Economic Security" to draft the present Social Security Act. The original draft included the recommendation of provisions for disability (accident and sickness) coverage.

The Social Security Act was enacted into law in 1935 and amended in 1939.

In 1938 an "Interdepartmental Committee to Coordinate Health and Welfare Activities," which had been appointed by President Roosevelt, made a report asking for the extension of the Social Security Act to include compulsory health insurance.

1939-1940: Wagner and Capper Bills introduced in Congress providing for Federal health insurance.

1942: Eliot Bill introduced in Congress providing for extension of Social Security Act to include disability (accident and sickness) benefits and hospitalization benefits.—Insurance Economics Society of America, Chicago.

—Journal, Michigan State Medical Society

REMEDIAL AGENTS AND HEALTH

"One deplorable aspect of life in America is reflected in the advice we get over the radio concerning a great variety of remedial agents. Those who act on these suggestions are the victims of fear," Arlie V. Bock, M.D., Boston, declares in *Hygeia, The Health Magazine* for June.

"Because there are so many such victims the makers of liver pills, cathartics and aids for this and that ailment are able to make good financial dividends. We do not need to take drugs to keep healthy. . . . When you have a cold or an acute upper respiratory infection, your best friend is early and sufficient bed care. . . . Your bowels will move if you give them a chance, and of all things you do not need colon irrigations. Your liver has enormous capacity to look after itself, and your kidneys get all the flushing out they need if you are leading a reasonable type of life. . . . In short, simple, intelligent, everyday hygiene is all that you need to be concerned about in all these respects. When things begin to go wrong, get some needed rest, and when questions arise that you cannot answer try to consult your doctor at once instead of worrying about dire possibilities. . . ."

Christopher, our old gardener, had many a story of miracles performed by a venerable preacher in a nearby village.

"It is The Lord Himself who tells the saint man things," he whispered. "Every day, in the late afternoon, the door opens, the Lord comes in and they talk together."

"And have you seen this with your own eyes?"

Christopher frowned. "No, but the saint man told it to me himself."

"And you really believe him?"

"Do I believe him?" Christopher raised his voice. "How can you talk of such a thing? Do you suppose The Lord would come in every day and sit down and talk with a liar?"

— *Quote*

In a little southern town, a mob was fixing to lynch a man when a very dignified old judge appeared. "Don't he pleaded, "put a blot on this fair community by hasty action. The thing to do," he insisted, "is to give the man a fair trial and *then* lynch him."

Dave Lane in *Quote*.

House of Delegates

NOTE: For the complete minutes on the first session of the House of Delegates please refer to your July issue of The Journal, page 18.

SECOND SESSION

THURSDAY MORNING, MAY 20, 1943

The Thursday morning session was called to order at 9:30 A.M. by the President, Dr. E. H. Weld, Rockford.

THE PRESIDENT: I wish to introduce to you Dr. L. R. Woodward, President of the Iowa State Medical Society.

DR. WOODWARD: I had our meeting on April 29 and 30, and we cut it down to two days instead of the usual three. We had an unusually good attendance. We do not have as large a Society as you do, having only 2400 members. Seven or eight hundred usually attend and this year we had 600: it was a very successful meeting. We did not have a war program. About one-third of our doctors are with the armed forces. I came here to visit Illinois to get ideas and to listen to the program. I bring greetings from the Iowa State Medical Society. I hope your representatives will be with us next year.

THE PRESIDENT: The first order of business is the report of the Credentials Committee.

DR. E. P. COLEMAN: There have been certified a total of 137 delegates, 75 from downstate, 46 from Chicago Medical Society, and 16 members of the Council. There are present at this morning's meeting 60 delegates from downstate, 27 from the Chicago Medical Society, and 11 members of the Council, a total of 98. I move that this constitute the voting strength of this assembly at this time. (Motion seconded by Dr. Mather Pfeiffenberger, Alton, and carried).

THE PRESIDENT: The next order of business is the roll call.

THE SECRETARY: I move, Mr. President, that the attendance slips constitute the roll call. (Motion seconded by Dr. E. P. Coleman, Canton, and carried).

THE PRESIDENT: The next order of business is the approval of the minutes of the first meeting of the House.

(The Secretary read the minutes).

DR. D. B. POND, Chicago: I move that the minutes be approved as read. (Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

THE PRESIDENT: The next order of business is the election of officers. I will entertain nominations for President-Elect.

DR. I. H. NEECE, Decatur: I wish to nominate Dr. E. P. Coleman of Canton.

DR. E. E. DAVIS, Avon: As a delegate from Fulton County I wish to second the nomination of Dr. E. P. Coleman, and to move that the nominations be closed and that the Secretary cast the affirmative ballot for Dr. Coleman as President-Elect of the Illinois State Medical Society. (Motion seconded by Dr. W. E. Kittler, Rochelle, and carried).

The ballot was cast and the President declared Dr. Coleman elected.

DR. COLEMAN: Mr. President and Members of the Society: All I can say is, I want to thank you for the signal honor. I think the office is going to be very difficult but I will do my best.

THE PRESIDENT: Nominations are in order for First Vice-president.

DR. JOHN S. NAGEL, Chicago: I wish to place in nomination the name of Dr. Robert S. Berghoff, Chicago. (Motion seconded by Dr. Robert H. Hayes, Chicago).

DR. NAGEL: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Berghoff for first vice-president. (Motion seconded by Dr. Robert H. Hayes, Chicago, and carried).

The ballot was cast and the President declared Dr. Berghoff elected.

THE PRESIDENT: Nominations are in order for Second Vice-President.

DR. FRED MULLER, Chicago: I wish to place in nomination the name of Dr. Wade Harker, Chicago. (Seconded by Dr. W. S. Bougher, Chicago).

DR. C. E. WILKINSON, Danville: I move the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Harker for second vice-president. (Motion seconded by Dr. John S. Nagel, Chicago, and carried).

The ballot was cast and the President declared Dr. Harker elected.

THE PRESIDENT: Nominations are in order for Secretary-Treasurer.

DR. L. O. FRECH, Decatur: I would like to place in nomination the name of a man who has done the job in the past, is doing it now and will continue to do it, Harold M. Camp. (Seconded by Dr. W. E. Kittler, Rochelle).

DR. E. E. DAVIS, Avon: I move that the nominations be closed and President instructed to cast the affirmative ballot for Dr. Camp. (Motion seconded by Dr. I. H. Neece, Decatur, and carried).

The ballot was cast and the President declared Dr. Camp elected.

THE PRESIDENT: Nominations are in order for Councilors, first, the Third District, Dr. John S. Nagel, Chicago, retiring.

DR. C. H. PHIFER, Chicago: I wish to place in nomination the name of Dr. John S. Nagel, Chicago, who has had long service in the Council. (Seconded by Dr. D. B. Pond, Chicago).

DR. C. E. WILKINSON: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Nagel for Councilor of the Third District. (Seconded by Dr. G. C. Otrich, Belleville, and carried).

The ballot was cast and the President declared Dr. Nagel elected for a three year term.

THE PRESIDENT: Nominations are in order for Councilor of the Third District to fill the unexpired term of Dr. L. E. DAY deceased.

DR. WADE HACKER: I would like to place in nomination the name of Dr. E. W. Mueller. (Seconded by Dr. D. B. Pond).

DR. HAROLD W. MILLER, Chicago: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Mueller. (Motion seconded by Dr. H. K. Scatliff and carried.

The ballot was cast and the President declared Dr. Mueller elected as Councilor for the Third District for a term of two years.

THE PRESIDENT: Nominations are in order for Councilor of the Fourth District, Dr. E. P. Coleman retiring.

DR. P. J. McDERMOTT, Kewanee: I wish to place in nomination the name of Dr. Charles P. Blair of Monmouth, who has been active in county work and also in state work. (Seconded by Dr. V. A. McClanahan, Aledo).

DR. E. E. DAVIS, Avon: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Blair. (Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

The ballot was cast and the President declared Dr. Blair elected.

THE PRESIDENT: Nominations are in order for Councilor of the Fifth District, Dr. Ralph P. Peairs retiring.

DR. JOHN McSHANE, Springfield: I wish to nominate Dr. Ralph P. Peairs to succeed himself. (Seconded by Dr. F. M. Hagans, Lincoln).

DR. G. C. OTRICH, Belleville: I move that the nominations be closed and the Secretary to

cast the affirmative ballot for Dr. Ralph P. Peairs. (Motion seconded by Dr. C. E. Wilkinson, Danville, and carried).

The ballot was cast and the President declared Dr. Peairs elected.

THE PRESIDENT: Nominations are in order for Councilor of the Seventh District, Dr. I. H. Neece retiring.

DR. L. O. FRECH, Decatur: I wish to place in nomination the name of Dr. I. H. Neece to succeed himself. (Seconded by Dr. J. S. Nagel, Chicago).

DR. P. J. McDERMOTT, Kewanee: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Neece. (Motion seconded by Dr. E. S. Hamilton, Kankakee, and carried).

The ballot was cast and the President declared Dr. Neece elected.

THE PRESIDENT: Nominations are in order for Councilor for the Eighth District, Dr. C. E. Wilkinson, retiring.

DR. J. J. LINK: I wish to nominate Dr. C. E. Wilkinson to succeed himself. (Seconded by Dr. E. E. Davis, Avon).

DR. L. O. FRECH, Decatur: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Wilkinson. (Motion seconded by Dr. V. A. McClanahan, Aledo, and carried).

The ballot was cast and the President declared Dr. Wilkinson elected.

THE PRESIDENT: Nominations are in order for delegates to the American Medical Association, three to be elected from downstate, Drs. Kittler, Wilkinson and Frech retiring, and one from Cook County, Dr. Hayes retiring.

DR. I. H. NEECE, Decatur: I would like to nominate Dr. L. O. Frech to succed himself.

DR. P. J. McDERMOTT, Kewanee: I would like to nominate Dr. Mather Pfeiffenberger, Alton.

DR. W. C. BLAINE, Tuscola: I would like to nominate Dr. C. E. Wilkinson, Danville, to succeed himself.

DR. W. E. KITTLER, Rochelle: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Drs. Frech, Pfeiffenberger and Wilkinson. (Motion seconded by Dr. E. E. Davis, Avon, and carried).

DR. W. S. BOUGHER, Chicago: I wish to nominate Dr. Robert H. Hayes, Chicago, to succeed himself. (Seconded by Dr. John S. Nagel, Chicago).

DR. V. A. McCLANAHAN, Aledo: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Hayes. (Motion seconded by Dr. C. M. Fleming, Rushville and carried).

The ballot was cast for both downstate and Cook County delegates and the President declared them elected.

THE PRESIDENT: Nominations are in order for Alternate Delegates to the American Medical Association, three from downstate to be elected for two years, Drs. Benard Klin, C. O. Lane and Harry Otten retiring, and two to be elected from Cook County, one for one year, overlooked last year, and one for one year to succeed Dr. A. H. Geiger deceased.

DR. O. L. BETTAG, Pontiac: I wish to place in nomination Dr. K. B. Rieger, Freeport.

DR. T. B. WILLIAMSON, Mt. Vernon: I wish to nominate Dr. C. O. Lane, West Frankfort, to succeed himself.

DR. E. S. HAMILTON, Kankakee: I wish to nominate Dr. Bernard Klein, Joliet.

DR. J. S. NAGEL, Chicago: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Drs. Rieger, Lane and Klein. (Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

The ballot was cast and the President declared Drs. Rieger, Lane and Klein elected.

THE PRESIDENT: Nominations are in order for one alternate to take the place of Dr. Pfeiffenberger who has been elected a delegate.

DR. BERNARD KLEIN, Joliet: I would like to nominate Dr. E. C. Kelly, Peoria. (Seconded by Dr. C. E. Wilkinson, Danville).

DR. E. E. DAVIS, Avon: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Kelly. (Motion seconded by Dr. I. H. Neece, Decatur, and carried).

The ballot was cast and the President declared Dr. Kelly elected.

THE PRESIDENT: Nominations are in order for alternate delegates from Cook County.

DR. P. R. BLODGETT, Chicago Heights: I wish to nominate Dr. Fred Muller, Chicago.

DR. R. H. HAYES, Chicago: I would like to nominate Dr. H. K. Scatliff, Chicago.

DR. W. S. BOUGHER, Chicago: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Drs. Muller and Scatliff. (Motion seconded by Dr. F. O. Fredrickson, Chicago, and carried).

The ballot was cast and the President declared Drs. Muller and Scatliff elected for one year.

THE PRESIDENT: The next order of business is the election of Standing Committees.

(Nominations were presented in each case, the Secretary instructed to cast the affirmative ballot for the following members of the Standing Committees, and they were declared elected by the President).

Public Relations: W. S. Bougher, Chicago, Fred Muller, Chicago, and H. W. Woodruff, Joliet.

Medical Legislation: James H. Hutton, Chicago, Robert H. Hayes, Chicago, Hermon H. Cole, Springfield.

Medico-Legal: P. R. Blodgett, Chicago elected for three years.
Heights, and R. O. Hawthorne, Kankakee, elected for three years.

Medical Education and Hospitals: H. O. Munson, Rushville, for three years.

Medical Benevolence: C. H. Hulick, Shelbyville, for three years, and H. M. Camp, Monmouth, for two years.

THE PRESIDENT: You must remember that the credit for starting this medical benevolence goes to Dr. Nagel. The Committee is doing a grand work and needs your cooperation. The members of the Committee do not want any doctor or doctor's wife or his immediate dependents to suffer because of lack of finances if it be possible for us to help them. The Medical Benevolence Committee, I want to assure you is trying to do what you want them to do, to help suffering doctors and their immediate dependents. If you do not report these cases the Committee cannot help them. If you do not investigate these cases when you are asked to, then its hands are tied.

The next order of business is fixing of the per capita assessment for 1944. It is now eight dollars, with remission of service men's dues.

DR. E. S. HAMILTON, Kankakee: I am speaking in behalf of the Council. The Council requests that the per capita tax remain the same as for the last few years and that the dues be remitted for those in service. I so move. (Motion seconded by Dr. C. E. Wilkinson and Dr. I. H. Neece, and carried).

THE PRESIDENT: The next order of business is the selection of a meeting place for the 1944 annual meeting. At the downstate caucus it was recommended that this matter be left to the Council because of the unsettled conditions at the present time. It is hard at this time to select a meeting place for our next annual meeting. I would like to have concurrence of this group of Delegates in that recommendation.

DR. MATHER PFEIFFENBERGER, Alton: I move that the selection of the next meeting place as well as the feasibility of holding a meeting be left to the discretion of the Council. (Motion seconded by Dr. W. E. Kittler, Rochelle, and carried).

THE PRESIDENT: The next order of business will be the reports of Reference Committees, and action on same.

Committee on Reports of Officers

Presented by Dr. G. Henry Mundt, Chicago.

Report of the President: We commend to you the report of the President of this Society. There is one feature which we think should be reiterated, that is the importance of continuing the history of the Illinois State Medical Society to which he refers in the next to the last paragraph of the report.

Report of the President-Elect: The report is thoroughly approved.

Report of the Secretary-Treasurer: The report of the Secretary-Treasurer demonstrated to the Committee and I think to the House, the wisdom of combining the offices of Secretary and Treasurer. If you are not acquainted with the financial report we advise that you look it over. We have no comments to make.

Report of the Chairman of the Council: A man usually rises to his obligations; the Chairman of the Council has done that and we commend his report.

DR. MUNDT: I move the acceptance of this report. Motion seconded by Dr. V. A. McClanahan, Aledo, and carried.

Report of Committee on Reports of Councilors Presented by Dr. A. H. Bitter, Quincy.

Your reference committee on Report of Individual Councilors published in the handbook for the House of Delegates wish to make the following report: After careful perusal and study of these reports the outstanding sentiments are reflected by the following:

First, medical men throughout the state are giving their loyal support to the armed forces of our country, while those remaining in civilian practice are carrying on with efficiency so that even though there is an acute shortage of physicians in many counties the civilian population is receiving adequate medical care. This we feel should be a source of pride to the entire membership of the Illinois State Medical Society.

Second, that the Post Graduate and refresher courses have been enthusiastically received and well attended, and it is hoped that the hard working committees who have made these meetings possible will continue their good work.

Third, there undoubtedly exists a universal discontent throughout our state relative to the unfair treatment to our physicians for treating old age recipient cases and aid to dependent children. We hope that the committee handling this problem will formulate a satisfactory and acceptable plan.

Fourth, our councilors throughout the state have indicated by their reports that they have given unstintingly of their time, effort and advice to the members in their respective districts. This we know has been done at great personal sacrifice, and the committee wishes to commend them for their accomplishments.

Fifth, several of the councilors have reported poor attendance and infrequent meetings held by many of our county societies. It is recommended that councilors exert every effort to improve this state of affairs.

Sixth, several councilors have again called our attention to the continued effort of government agencies to infringe on the rights of private physicians, and warn us against this distinct threat. However, they offer no constructive solution. It, therefore, behooves all of us to be vigilant so that no group can set themselves up as a bureaucracy dictating the policies of the medical profession.

In concluding this report we salute all colleagues now in the uniform of our country, and also hats are off to the men on the home front.

Respectfully submitted,
WADE HARKER
A. M. VAUGHN
A. H. BITTER, Chairman

DR. BITTER: I move the acceptance of this report. (Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

Report of Committee on Reports of Council Committees

Report of Committee "A"

Presented by Dr. A. B. Owen, Rockford

Report of the Educational Committee: This report is indeed commendable, especially in the face of the difficulties which have arisen in this war year with the difficulty of obtaining speakers and transportation facilities being as they are. We especially commend the articles appearing in the county papers throughout the state and the radio talks which have been given in spite of the radio stations closing their service to the medical profession at large. The material going out under the "Do You Know" column is of paramount importance, and your committee is especially grateful for the untiring effort of the Educational Committee and especially for its cooperation with the office of Procurement and Assignment.

(DR. OWEN: I move the adoption of this portion of the report. Motion seconded by Dr. O. W. Rest, Chicago, and carried).

Report of the Scientific Service Committee and the Report of the Post-Graduate Committee: This report is exceedingly worth while, especially the post-graduate conferences. Your committee feels that this should be extended, and also the plans which are being made to conduct ward walks and clinics within the Chicago area, and they should be advertised in the Illinois Medical Journal, and as far as possible the names of each clinic so conducted should be announced each month in the Illinois Medical Journal.

(DR. OWEN: I move the adoption of this portion of the report. Motion seconded by Dr. R. H. Hayes, Chicago, and carried).

Report of the Medical Economics Committee: This committee has given a comprehensive survey of the general social trends facing us both

of foreign and domestic origin, and we wish to commend their foresight and their grasp of the situation in stating in their report as they do, quote —

> "It is further stated that the possible scope of private general practice will be so restricted that it may not appear worth while to preserve it."

and the further report, (1) The National Resources Planning Board Reports; (2) The Group Hospitalization Plan; (3) The Medical Service Plan, and not the lease, the decision of the Supreme Court.

We, your committee, feel that we should recognize the social trend of the times, but by the same token we are certain that complete social security can never be obtained by every member of every community. Further, we are not sure that complete social security would not completely destroy the morale of any country, in which it might be adopted. We are not in complete sympathy with any of the social security plans now under discussion, and further, we believe they should be studied thoughtfully and the medical profession give its approval to these plans only when merited.

DR. OWEN: I move the adoption of this portion of the report. Motion seconded by Dr. W. E. Kittler, Rochelle, and carried).

Report of the Medico-Legal Committee: The Medico-Legal Committee report is a short one and it is stated that inasmuch as many of our members are in the armed service, fewer suits or threats of suits have been instituted. It is thought by your committee that a certain number occur without being reported to the Medico-Legal Committee. We believe it would be desirable for purposes of historical record to suggest to the members of this Society that they report all such cases and that files of these records be kept in the archives of the Society in order that they may be studied by future members of the Medical-Legal Committee.

(DR. OWEN: I move the adoption of this portion of the report. Motion seconded by Dr. I. H. Neece, Decatur, and carried).

Report of the Committee on Arrangements: We feel that the success of this convention has been due to the selection of such a competent chairman and a well functioning committee, and we feel that the Society should be congratulated for the orderly manner in which the convention has been conducted.

(DR. OWEN: I move the adoption of this portion of the report. Motion seconded by Dr. V. A. McClanahan, Aledo, and carried).

Respectfully submitted,
A. B. OWEN, Chairman
OSCAR HAKINSON
ARIEL WILKINSON

DR. OWEN: I move the adoption of the entire report. Motion seconded by Dr. I. H. Neece, Decatur, and carried.

THE PRESIDENT: I want to commend this Committee on a very excellent report.

Report of Committee "B"

Presented by Dr. Frank F. Maple, Chicago

The Fifty Year Club has a membership of 287 who have completed fifty years in the practice of medicine in Illinois. Attention is called to all county societies that all such men whether or not they are now members of the State Society are eligible to membership if sponsored by their county society. This reviewing committee recommends that each county survey its older practitioners and enroll those eligible men in the Fifty Year Club.

(DR. MAPLE: I move the adoption of this portion of the report. Motion seconded by Dr. T. B. Williamson, Mt. Vernon, and carried).

Report of Committee on Industrial Health: This Illinois Committee, a unit in the Council on Industrial Health of the American Medical Association, must undertake a job of real importance. Wartime needs have emphasized those sound health measures which are so valuable in times of peace.

A functioning committee in each county is the answer in arriving at the objectives as summarized. County programs and papers on general programs have carried these objectives to the industrial physician.

Full cooperation by the Illinois State Medical Society has aided in the furtherance of this program. Its work, its membership and continuation are recommended by this reviewing committee.

(DR. MAPLE: I move the adoption of this portion of the report. Motion seconded by Dr. J. H. Hutton, Chicago, and carried).

Report of the Maternal Welfare Committee: Covering the report of the State Maternal Welfare Committee, your reviewing committee is very familiar with the work of the Maternal Welfare group. This group, now in its sixth year, has accomplished so much in the education of expectant mothers, the routine prenatal care by the physicians, the investigation of maternal and neo-natal deaths and the encouragement of post-graduate and refresher courses among physicians.

Each county now has its own welfare group with the recommendation that they cooperate with lay groups to further the program of lay education, this county group to make their own investigation of fetal and maternal deaths.

The committee has frequently recommended the adequate number of obstetric and pediatric subjects on all state and county programs and the recommendation is being followed over the state.

Three brochures have been prepared by the Welfare Committee:

1. Routine care of expectant mothers.
2. Advice to expectant mothers.
3. What price abortions?

All have been accepted by our State Council, have been published and are ready for free distribution.

Six years of work by this committee has brought to Illinois a maternal mortality rate as low as any state in the union, and its program of performance is sought after as a pattern by maternal health groups of other states.

(DR. MAPLE: I move the adoption of this portion of the report. Motion seconded by Dr. E. E. Davis, Avon, and carried).

Respectfully submitted,
FRANK F. MAPLE, Chairman
C. O. HIGHSMITH
P. J. McDERMOTT

DR. MAPLE: I move the adoption of the report as a whole. (Motion seconded by Dr. I. H. Neece, Decatur, and carried).

Report of Committee "C"

Presented by Dr. R. K. Packard, Chicago

Your Reference Committee as appointed by the President consisted of three members and due to the absence of Dr. Hartman at the opening session, all three were from Chicago. The Committee met at 11 A.M., Wednesday and your Chairman suggested to the Committee the advisability of asking the President to name four more delegates to this Committee, all to be downstate delegates. The Committee concurred in this recommendation and accordingly the President appointed W. M. Hartman, W. I. Lewis, J. H. Gernon and W. E. Kittler. The original Committee felt that inasmuch as this was largely a downstate controversy, that they should have the majority representation on the Committee.

Your full Committee convened at 2 P.M. to discuss the reports referred. That portion of the report of the Chairman of the Council dealing with *The Committee on Medical Care of the Public Assistance Recipients,* was considered. The Chairman of the Council stated that the Committee recognized the fact that the compensation of physicians under the present plan was not sufficient and that efforts were being made to correct this. The Chairman of the Council further stated that this was a very controversial subject and urged all delegates to read the report of this Committee, and further reported that the special sub-committee recommended by the House last year, and later appointed by the Council to consider the matter of fees and report back to the Council had been appointed but that their report had not been received at the time of the publication of his report, thus it would be necessary for him to make a supplementary report. The Chairman of the Council made a supplementary report at the opening session stating that the sub-committee's report had been received, and presented to the Council and that the Council had passed the following motion:

"That the report of the sub-committee, Advisory Commitee on Medical Care for Public Assistance Recipients, did not confine itself to the purpose for which it was appointed and that we take no action regarding this report. However the Council endorses the activities of this Committee and commends them for their efforts. Motion carried."

The Chairman of the Council then briefly discussed the report of the sub-committee. Your Reference Committee commends the Chairman of the Council for his interest, vision and candor in this portion of his report.

The sub-committee's report was then referred to this Committee. To clarify whether or not the sub-committee had or had not confined itself to the purpose for which it was appointed, your Committee referred to the action of the House last year and to the action of the Council.

Dr. K. B. Rieger made the following motion:

"I move, Mr. President, that the President of this Society dismiss the present committee on Public Welfare and Old Age Assistance and that the President appoint a new committee composed of seven general practitioners from the northern, central and southern parts of the state to meet with the Welfare Deparment of the State and to arrange for a more equitable fee schedule, etc., this committee to consist of T. B. Williamson, Mt. Vernon, O. L. Bettag, Pontiac, H. D. Junkin, Paris, G. H. Edwards, Pinckneyville, J. O. Cletcher, Tuscola, William Scanlon, LaSalle, and K. B. Reiger, Freeport." Dr. Harlan English seconded the motion. Dr. A. H. Bitter made the following motion:

"I move that this motion be tabled." Seconded by Dr. J. J. Pflock, and carried.

Dr. L. E. Day made the following motion:

"I would like to make a motion that the names of these gentlemen be submitted to the Council for consideration and possible appointment." Seconded by Dr. R. H. Hayes and carried.

At the meeting of the State Council held May 31, 1942 the resolution was considered, also Dr. Reiger's resolution, and after much discussion the following sub-committee was appointed to determine whether or not a more equitable fee schedule could be developed. The Committee was Dr. K. B. Reiger, Chairman, Dr. O. L. Bettag, Dr. G. H. Edwards, Dr. William Scanlon, and Dr. Harlan English.

The sub-committee's report was then read by your Reference Committee. The report is composed largely of an opinion from the Attorney General relative to the Pauper Act and the act relative to Aid to Dependent Children and the Old Age Assistance Act. The Committee finally recommends: It is the opinion of the sub-committee that the Council of Illinois State Medical Society concur with the Vermilion County Medical Society and the Leglislative Committee of the Illinois State Medical Society in the passage of Senate Bill 233 and House Bill 241 which are the result of the efforts of the sub-committee through their attorney, Hon. W. W. Acton. The Committee further states that additional recommendations cannot be given at this time, as additional data from the Department of Public Assistance and the Illinois Public Aid Commission is pending. The sub-committee further suggests that efforts be directed by the Council to gather this data for submission to the Welfare Committee of the Illinois State Medical Society and the sub-committee on O.A.A. and the A.D.C. for further study and recommendation. Your Committee commends the sub-committee ror their interest.

Your Reference Committee recommends that inasmuch as there was no recommendation relative to fee schedules and a recommendation for sponsoring legislative action and that inasmuch as this report was directed to the Council, that it be returned to the Council for their final consideration and disposition.

(DR. PACKARD: I move the adoption of this portion of the report. Motion seconded by Dr. R. H. Hayes, Chicago).

DR. O. L. BETTAG, Pontiac: I move that this portion of the report be not approved until the full report of the sub-committee can be presented to this House. (Motion seconded by Dr. K. B. Reiger, Freeport).

THE PRESIDENT: The motion of Dr. Packard having been duly made and seconded, the motion made by Dr. Bettag is out of order, and I rule that the motion of Dr. Packard stands.

DR. R. H. HAYES, Chicago: Inasmuch as the portion of the report for which Dr. Packard requested approval refers to instructions of the sub-committee to the Council and the port dealt with those matters, the first motion should stand.

(The motion was put and carried, with three or four delegates voting no.)

Report of the Committee on Medical Care of Public Assistance Recipients: The report of this committee was then considered. This is an exhaustive report covering the subject in great detail and giving much valuable statistical information. It also reviews the many problems that have arisen, also the changes in the various acts covering paupers and assistance to old age

dependents and aid to dependent children. Every member of this House should read this report as should every doctor in the state who is interested in this program.

Your Committee reviewed the correspondence between the Committee and the various public agencies. It reflects a close contact and sensible and sane approach to a problem that interests the state, the receipents and the doctors. Your Committee reviewed carefully the questionnaire sent to the county medical societies and finds that the great majority are having little or no trouble under the present plan. The outstanding criticism was relative to payment of doctors' and hospital bills in last illness. It is evident that when the county medical societies have made an honest and intelligent approach to the problem that they have been able to solve it with the exception of payment for last illness.

The supplementary report made by the Chairman of the Committee is briefly as follows:

Mr. Brandon, Director of the Department of Public Welfare and Mr. Hilliard of the Illinois Public Aid Commission, and Mr. Clark, Superintendent of the Division of Public Assistance, all agreed that their departments would sponsor legislation and support it, to make direct payment for physician and hospital care in last illness. Mr. McKibben, Director of Finance, by telegram concurred in this statement.

On May 17, the Division of Public Assistance agreed to raise the price of an office call from $1.00 to $1.50, this to become effective June 1, 1943.

The Chairman further recommended that the Committee continue to work and cooperate with these agencies.

Your Reference Committee commends the report and is appreciative of the vast amount of time and energy they have given to the matter. Your Reference Committee recommends that the recommendation of the Committee in both its original and supplementary report be concurred in.

(DR. PACKARD: I move the adoption of this portion of the report. Motion seconded by Dr. E. E. Davis, Avon).

DR. O. L. BETTAG, Pontiac: We have just reviewed Mr. Brandon's statement. You will note they will be glad to back any legislation. There is nothing on record that they will do anything for the payment of final illness. This is the first time that the state is beginning to move.

(Motion carried unanimously).

Report of the Inter-professional Relations Committee: The Chairman after a brief statement believes it advisable to postpone the work of this Committee during the duration of the war. Your Reference Committee recommends that this be referred to the Council.

(DR. PACKARD: I move the adoption of this portion of the report. Motion seconded by Dr. E. E. Davis, Avon, and carried).

Respectfully submitted,

W. I. LEWIS
WALTER E. KITTLER
G. E. JOHNSON
F. H. MULLER
J. H. GERNON
W. M. HARTMAN
R. W. PACKARD, Chairman

DR. PACKARD: I move the adoption of the report as a whole. (Motion seconded by Dr. V. A. McClanahan, Aledo, and carried).

Report of Committee "D"

Presented by Dr. N. S. Davis III, Chicago

The report of the *Committee on Tuberculosis* shows that excellent progress is being made throughout the state outside of Cook County in providing facilities for the diagnosis, isolation and treatment of patients with active and open tuberculosis. As the tuberculosis problem is particularly acute in Cook County where there are numerous areas in which both the incidence and mortality rates are high, it seems strange that no attention was given to this section. Cook County also needs at least 1500 additional beds for the isolation of tuberculosis patients and might well have one or more tuberculosis districts organized in the "county towns" under existing laws. The funds now available for the Chicago Municipal Tuberculosis Sanatarium are inadequate for existing needs and make no provision for further expansion.

(DR. DAVIS: I move the adoption of this portion of the report. Motion seconded by Dr. I. H. Neece, Decatur, and carried).

The report of the *Cancer Control Committee* shows that it is on the job and working in close

cooperation with the Cancer Committee of the Chicago Medical Society, the Chicago Cancer Committee, Inc., the Division of Cancer Control of the State Department of Public Health, and the Women's Field Army to promote early diagnosis and treatment of cancer.

(DR. DAVIS: I move the adoption of this portion of the report. Motion seconded by Dr. I. H. Neece, Decatur, and carried).

The report of the *Venereal Disease Control Committee* shows that it has been working effectively with local and state agencies to bring these diseases under control.

(DR. DAVIS: I move the adoption of this portion of the report. Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

It seems strange that the Council did not appoint a substitute for Dr. Murphy and a new chairman when he entered the Army last fall. The work of so important a Committee as that on *Crippled Children's Clinics,* supported in part by the Federal Government, should not be permitted to lapse because its chairman entered the Army.

(DR. DAVIS: I move the adoption of this portion of the report. Motion seconded by Dr. C. E. Wilkinson, Danville, and carried).

From its report, the *Committee on Mental Hygiene* has continued its good work in connection with the problems of mentally handicapped children. Should it not also consider some of the problems of draftees who have not been accepted by the armed services because of mental disorders, alcoholism and other problems of adults in need of diagnosis and treatment of mental disorders.

(DR. DAVIS: I move the adoption of this portion of the report. Motion seconded by Dr. F. O. Fredrickson, Chicago, and carried).

Respectfully submitted,
W. C. BLAINE
H. F. BENNETT
N. S. DAVIS, III, Chairman

DR. DAVIS: I move the adoption of the report as a whole. Motion seconded by Dr. W. S. Bougher, Chicago, and carried.

Reports of Editor; Medicine and the War; and Scientific Work

Presented by Dr. L. O. Frech, Decatur.

Report of the Editor: The Illinois State Journal has undergone some marked changes during the past year, which have greatly improved the appearance of the official mouthpiece of the Illinois State Medical Society. It has been modernized to the extent of making it an up to date periodical and perhaps the best State Medical journal in this country.

It is gratifying to your committee to note the changes made in color and design. Rearrangement has been effected to render greater accessibility to the contents and reading matter and the type and print in such as to make it easily readable.

The advertising section has improved greatly. We notice more full page and more ads in color which lends greatly to attractiveness. More advertising has been added and as far as we are able to determine none but ethical and reliable concerns have been permitted use of the columns of the Journal. Advertising in amount has much to do with financial returns, and from the quality and quantity of ads the past year must have produced increased financial returns. The policy of the editorial board in asking cooperation of the American Medical Association on advertising is to be commended.

New departments have been added which are both interesting and instructive, and we believe that the closer the Journal touches its members the better the Journal will be. The contents of this medical publication, to be most practical and of highest interest, should cover as many aspects of the practice of medicine as feasible, but we would warn against monopoly by any specialty, or specialties, as it should be kept wholly in the province of general medicine.

Your Committee feels that the machinery as set up at present for the publication of the Journal is both systematic and efficient, and with an editorial board to determine policies, a publication committee to advise as to content, and an editor to assemble and publish, the best that can be had in medical publication will come to each member of the State Society each month, and that each member will appreciate the brevity of the subject matter.

We commend the editor and his board for the good work they are doing, and wish to express the appreciation of the members of this Medical Society on behalf of the same.

(DR. FRECH: I move the adoption of this portion of the report. Motion seconded by Dr. P. J. McDermott, Kewanee, and carried).

Medicine and the War: Your Committee wishes to state that too much praise is impossible for those who have given of their untiring efforts to formulate the policies and carry out the necessary measures to provide the medical manpower from the State of Illinois to meet the requirements of the Army, Navy, and Marines of the United States, and at the same time not deplete the physicians to the extent that the civilian population will suffer from lack of proper medical care. This has been accomplished not without timidity on the part of those having the measures in charge, as they have been obliged to sit in judgment on their brother practitioner's needs, both for the armed forces and their local communities.

The State Selective Service and the State Procurement and Assignment Service working with and under the war manpower commission of the government, have closely cooperated to the advantage of all groups, and the profession of Illinois should be proud of its accomplishment in fulfilling its quota of qualified doctors and still not neglecting to take care of the civilian requirements.

Your Committee is pleased to state that there have been but few instances in which physicians of qualified age have used every means at their disposal to keep out of service that they may profit by the decrease in physicians in their communities. There should be no slacker to disgrace the medical profession of Illinois.

As a result of the war situation there has arisen some agitation concerning physicians from adjoining states being allowed to practice in Illinois without an Illinois license. This would require amendment to the Medical Practice Act, and your Committee recommends that it be condemned. We believe that there still are sufficient Illinois physicians to adequately take care of the public and that any locality depleted of physicians has been and can be serviced by the re-location of medical personnel where the necessity arises.

Your Committee is of the opinion that the educational requirements and the medical curricula of our schools should receive careful scrutiny by the faculties and the profession. The current trend by the Government to shorten the course of training and the subsidizing of pre-medical and medical students has the unsavory glamor of reverting to the lowering of the standard of medical education with a resulting lower grade of medical service to the public. Therefore, too much emphasis cannot be put on maintaining the high standard required today by the State of Illinois. Also maintaining the independence of the State, the independence of its individuals and the maintenance of State rights.

(DR. FRECH: I move the adoption of this portion of the report. Motion seconded by Dr. C. E. Wilkinson, Danville, and carried).

Scientific Work: Your Reference Committee on scientific work desires to state approval of location and general arrangements of this 1943 meeting of the Illinois State Medical Society. The program of meetings has been altered to conform with more simplicity, less confusion and greater convenience to the attending members. We like it better. The sections have partially lost their identity and have been infused in one homogenous mass of general medicine. Inasmuch as the specialist class is quite small compared to the class of general practitioners, and inasmuch as the State Medical Society represents medicine in Illinois, most of which is general medicine, we feel that the section meeting programs should be along lines which integrate the specialties into a part of general medicine rather than separating them and by so doing making them a branch instead of a component part, of medicine.

If our programs can be arranged, as they tend to be this year, into units whereby the general practitioner can, on one program, get a little bit of many subjects instead of much of a specialty, the State Society will thereby be tendering him a service which will better fill his needs and one which will prepare him in a better way to meet the problems of his every day service. As a time saving measure, and as a method of preventing many men from missing an interesting paper, it will work admirably. We recommend more general and less specialty programs for this Medical Society.

We feel that symposiums and round-table discussions with an opportunity for the attendants to ask questions not only makes an

interesting metting, but a most profitable one.

As to the matter of papers, it is our opinion that ultra-scientific discussions should not be presented because of their lack of value in a practical way. Problems of research have no value, as presentations, unless the matter of research has been extensive; can show good results in various hands, and has been applied to human beings in a clinical procedure. Unless Research can meet these standards their findings have no proper place on the Society program. New methods of diagnosis or application we do not include in this category. We suggest that it might be feasible to survey the membership on their attitude toward, and their desire of, material for program presentation.

General Sessions we deem to be desirable for the reason that outstanding men from other areas should have a place on our program. The speakers on general session programs should be men of high standing in their profession and leaders in their particular fields. General sessions should be open to the public, but the discussion should be one closely allied to the practice of medicine, and fields of semi-scientific, social or economic application. General scientific sessions should be closed to the public and should be discussions entirely scientific in nature.

We believe the scientific exhibits to be a very useful tool in education. We recommend the continuance of same. They should not be open to the public except in displays where they pertain to preventive medicine or to the health procedures for the public welfare. The scientific exhibits this year are up to the usual standard, but because of extraneous circumstances are fewer in number. We recommend, for the convenience of members and as a time saver, that the scientific exhibits be grouped in sections according to the phase of medicine to which they belong.

(DR. FRECH: I move the adoption of this portion of the report. Motion seconded by Dr. I. H. Neece, Decatur, and carried).

Summary: Your Committee approves the report of the editor; evaluates the Illinois Medical Journal as the best of State Medical Journals, and the machinery by which it is published as well organized and efficient.

We endorse that which has been done by our various State Committees in gearing Illinois medicine to the war program; in approving programs of cooperation in the war efforts; and through procurement and assignment, in furnishing Illinois' quotas of medical men to the armed forces. We hope and beg that the civilian population will not be forgotten.

We approve the meeting place of the 1943 meeting; the program as rearranged; and the general arrangements of our host — The Chicago Medical Society. This being done under difficult and trying conditions makes the success of this meeting all the more apparent.

Respectfully submitted,
G. L. KAUFMAN
ROBERT H. HAYES
L. O. FRECH, Chairman

DR. FRECH: I move the adoption of the report as a whole. (Motion seconded by Dr. W. E. Kittler, Rochelle, and carried).

THE PRESIDENT: I want to commend Dr. Frech's Committee on what I consider a very excellent and worthwhile report.

Report of Committee on Reports of Standing Committees

Presented by Dr. P. R. Blodgett, Chicago Heights

Referred to this Committee were the reports of the following Standing Committees: Public Relations, Legislation, Medical Education and Hospitals, Medico-Legal, Archives, and Benevolence.

Public Relations: We commend the Committee for the aggressive prosecution of one of our most aggravating problems, that of certain insurance companies attempting to set their own fee scale for professional services rendered. The fact that physicians' bills are paid as rendered is a real contribution to the cause of organized medicine.

(DR. BLODGETT: I move the adoption of this portion of the report. Motion seconded by Dr. Robert H. Hayes, Chicago, and carried).

Legislation: This Committee brings to the doctors bills presented to the legislature which affect the practice of medicine. At this session of the Illinois General Assembly attempts are being made to weaken the medical practice act of Illinois. These attempts are made by the various cults at every session. The fact that our medical practice act has withstood so many attacks is due to two factors: (1) the

fundamental sincerity and vision of the great majority of our legislators in both houses of the Illinois General Assembly, and (2) to the great foundation in contact and education developed through the years with members of the legislature by the late Dr. John R. Neal. The work which he did remains as a real challenge to the members of that important committee. The efforts of this committee must be redoubled at this critical time for we must realize that legislation may be presented at any time which may profoundly affect the future status of practice.

The attempts of cults to secure the same recognition accorded the medical profession is as old as the cults themselves. In the activities of the federal government, we can safely trust the Surgeon Generals of the Army, Navy and Public Health Service to guide the professional service under their respective directions.

The Committee reviews but does not indorse House Bill 1857 which provides for the commissioning of women physicians in the Army and Navy Medical Corps. This Reference Committee is of the opinion that this bill in Congress should be actively supported by the profession. With thousands of our young women in the auxiliary corps of the Army and Navy, certainly partriotic women doctors should be accorded the privilege to serve. These Women's Auxiliaries have their own women's staff and line officers and should have women medical officers.

We commend the committee for their efforts in so carefully analyzing the various bills presented to the Illinois General Assemblies. We commend the committee for enlisting the services of Mr. John Neal, who through the years was so thoroughly tutored by his illustrious father.

(DR. BLODGETT: I move the adoption of this portion of the report. Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

Medical Education and Hospitals: This Committee has well analyzed the problem confronting our medical schools under war pressure. Every effort must be made to keep medical education on its present high standard of training. The committee points out the problems that we all find in our hospital practice, namely a shortage of interns and an increased number of patients with fewer staff members. This committee is to be commended.

(DR. BLODGETT: I move the adoption of this portion of the report. Motion seconded by Dr. T. B. Williamson, Mt. Vernon, and carried).

Medico-Legal: This Committee has always done a splendid job. The decision of the House of Delegates, a few years ago, to put legal defense entirely in the hands of insurance companies was not altogether a blessing. It was a fine thing for the insurance companies, but it left many members of the profession without legal defense in malpractice suits. The advice of this Committee will prevent many suits being filed, which is worth a great deal, even though the doctor is covered by insurance. We commend the Committee and paricularly its chairman, Dr. J. R. Ballinger, who for many years has rendered a great service to this Society.

(DR. BLODGETT: I move the adoption of this portion of the report. Motion seconded by Dr. P. J. McDermott, Kewanee, and carried).

Archives: This Committee is undertaking a very important work. The suggestions made in their printed report should be carried out, namely, the collection of essential information by representative members in each conuty society. The history writing function of this Committee will be greatly hampered unless complete accurate information is received, given the proper support, this Committee will give us a real hisory of the profession in Illinois.

(DR. BLODGETT: I move the adoption of this portion of the report. Motion seconded by Dr. V. A. McClanahan, Aledo, and carried).

Benevolence: This Committee is doing a very happy job for all of us. The aid given under our plan carries none of the coldness of organized charity. It is helping to make a hard road easier. We are as happy to help as the receiver is thankful. This Committee asks that the Secretary-Treasurer be made a member of the Committee. This will greatly facilitate the work to be done. That request should be granted. This Reference Committee recommends that the secretary of the county society, or some member designated by him, be held responsible for reports and followups on anyone needing or receiving aid from this fund; this will aid the Secretary of the State Society to keep all rec-

ords in order and in preventing delays. We commend the Committee for the work they are doing with particular emphasis on the work of its active Chairman, Dr. John S. Nagel.

(DR. BLODGETT: I move the adoption of this portion of the report. Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

Respectfully submitted,

W. I. LEWIS
W. A. FRYMIRE
P. R. BLODGETT, Chairman

(DR. BLODGETT: I move the adoption of the report as a whole. Motion seconded by Dr. E. E. Davis, Avon, and carried).

Report of Committee on Miscellaneous Business
Presented by Dr. C. O. Lane, West Frankfort

Woman's Auxiliary: The Committee endorses wholeheartedly the work carried on by the Auxiliary. Such work as a substantial contribution to the Benevolence Fund, the cooperation and assistance to the Red Cross in securing blood banks, the teaching of First Aid classes, the donation of sewing kits, the assistance given in stamp and bond drives, the sponsoring of scholarship for student nurses, and other endeavors mentioned in their report. This is a very vital and important contribution and we commend them for this work. The Committee wishes to encourage them in the further organization of their Society in counties not yet organized, and suggest that the various County Medical Societies cooperate with them in this work.

It is suggested by this Committee that the dues of members whose husbands are in the service be remitted for the duration of such service.

(DR. LANE: I move the adoption of this portion of the report. Motion seconded by Dr. I. H. Neece, Decatur, and carried).

The War Participation Committee: The action of this Committee in an advisory capacity in the many difficult problems arising as a result of our war effort is, in the opinion of this Committee, very important. We commend them on their work along this line, and advise that they continue to function in the work delegated to them by the House of Delegates of the American Medical Association.

(DR. LANE: I move the adoption of this portion of the report. Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

Respectfully submitted,

C. O. LANE, chairman
BEN E. FILLIS
S. M. GOLDBERGER

DR. LANE: I move the adoption of the report as a whole. Motion seconded by Dr. I. H. Neece, Decatur, and carried.

THE SECRETARY: I wish to announce that the registration at this meeting totaled 2600.

THE PRESIDENT: I wish to take this opportunity to present the Chairman of the Arrangements Committee and the newly elected first Vice-President, Dr. Robert S. Berghoff.

DR. BERGHOFF: Mr. Chairman and members of the House of Delegates: This just like my assignment as General Chairman is an unexpected honor. I shall take just two minutes to say this to you sincerely and humbly; this job looked like a big job in the beginning. It could have been a big job, except that we picked out twenty-two members of the Committee who with Jean McArthur, Esther Fraser, and the old war horse, Harold Camp, made this just as simple as could be. Last night, at the conclusion of the marvelous dinner and the speech of that human dynamo, left an impression with me that I shall carry throughout my life. I thank you all. In war time and in three days of probably the worst weather Chicago has had for years — just like California where it never rains — we ran up 2600 registrants.

THE PRESIDENT: We come now to the report of the Committee on Resolutions.

DR. FRANK P. HAMMOND, Chicago: We have had presented to us twelve resolutions, and we are now presenting them to this august body with our recommendations.

1. *THE DEVELOPMENT OF A STRONGER NATIONAL ECONOMIC AND LEGISLATIVE POLICY GOVERNING THE PRACTICE OF MEDICINE.*

(See Page 72)

DR. HAMMOND: The Committee recommends the adoption of this resolution, and I so move. (Motion seconded by Dr. G. E. Johnson, Chicago, and carried).

3. *PAYMENT BY THE ILLINOIS STATE MEDICAL SOCIETY OF ANNUAL STATE AUXILIARY DUES FOR EACH MEMBER-WIFE OF PHYSICIANS IN SERVICE.*

(See Page 73)

DR. HAMMOND: Your Committee recommends the adoption of this resolution and I so move. (Motion seconded by Dr. A. B. Owen, Rockford).

I have been asked how many members in the Auxiliary. There are 936, about 33 per cent or 312 are in service. This resolution only covers the dues the county societies must pay to the state; they are not asking that local dues be remitted. Twenty-five cents goes to the National organization and seventy-five cents to the state.

DR. E. S. HAMILTON, Kankakee: I think all of us are heartily in accord with the resolution, but having to do with finances I think it automatically is referred to the Council. I would suggest that it be referred to the Council with the recommendation that it be done. (Seconded by Dr. J. J. Pflock, Chicago).

DR. HAMMOND: The Committee accepts the amendment. (Motion to refer the resolution to the Council, carried).

4. *CAMPAIGN FOR HYGIA*

(See Page 73)

DR. HAMMOND: The Committee recommends that the last paragraph be deleted, namely, "with the request that this resolution be read at the next stated meeting and similar action taken to cooperate in this health education campaign by widening the distribution of Hygeia, The Health Magazine." We feel that the presentation to the county societies should be voluntary and not a mandate. As revised the Committee recommends the adoption of this resolution, and I so move. (Motion seconded by Dr. D. B. Pond, Chicago, and carried).

5. *CITIZENSHIP A REQUISITE FOR LICENSE TO PRACTICE MEDICINE IN THE STATE OF ILLINOIS*

(See Page 74)

DR. HAMMOND: The Committee recommends that the last paragraph in this resolution be deleted, and with this revision the Resolution Committee recommends the adoption and I so move. (Motion seconded by Dr. J. J. Pflock, Chicago, and carried).

6. *ENDORSEMENT OF SENATE BILL 233 and HOUSE BILL 241*

(See Page 74)

7. *ENDORSEMENT OF HOUSE BILL 437 PERTAINING TO ADEQUATE LEGISLATION RELATIVE TO PURE FOODS, DRUGS AND COSMETICS*

(See Page 75)

DR. HAMMOND: The Committee recommends that the last paragraph be altered to read:

"Therefore, be it resolved, that the Illinois State Medical Society, in convention assembled, indicate the desirability of its membership giving individual support and endorsement of the bill for passage by the Legislative Branches of the State of Illinois."

With this revision the Committee recommends the adoption of this resolution, and I so move. (Motion seconded by Dr. R. H. Hayes, Chicago, and carried).

May I ask Dr. Harlan English to report on Resolutions 2, 2A, 6 and 8.

DR. ENGLISH: Resolutions 2, 2A, 6 and 8 were considered controversial resolutions, I will read them.

2. *ENDORSEMENT OF SENATE BILL 233 and HOUSE BILL 241 KNOWN AS THE LUCKY-EDWARDS BILL.*

(See Page 72)

2A. *ENDORSEMENT OF SENATE BILL 233 and HOUSE BILL 241*

The Livingston County Medical Society offers the following resolution to the House of Delegates of the Illinois Medical State Society, assembled in Chicago, Illinois, May 18, 1943:

Therefore be it resolved, that the Livingston County Medical Society approves and endorses Senate Bill 233 and House Bill 241 as introduced by Senator Lucky and Congressman Edwards.

Be it further resolved, as these bills are sponsored by the Vermilion County Medical Society that we urge the Illinois State Medical Society to follow our action in endorsing these bills and to use every means possible to secure passage of the same.

8. *INCREASE IN FEES PAID TO PHYSICIANS FOR SERVICES RENDERED RECIPIENTS OF THE OLD AGE ASSISTANCE PROGRAM*

(See Page 75)

DR. ENGLISH: Resolutions 2, 2A, and 6 concern Senate Bills 233 and House Bill 241. The Committee feels that since the Senate Bill 233 has had a committee hearing in the Senate and was reported out of the senate committee for favorable passage and has had two readings that it might be inadvisable for this governing body to officially go on record as endorsing legislation under discussion. This does not mean that each delegate or doctor in Illinois should not, if he so desires, use every means to secure the passage of such legislation. The Resolution Committee feels that the House of Delegates should leave such official discretion to the Society's Legislative Committee which has already approved and recommended individual membership support for the passage of these bills. Therefore, the Resolutions Committee recommends that resolutions 2, 2A and 6 be not officially adopted but referred to the Legislative Committee for their use.

I move the adoption of this portion of the report. (Motion seconded by Dr. E. E. Davis, Avon).

DR. K. B. RIEGER, Freeport: I am stunned to hear the report given by Dr. English in this particular instance. As a member of the sub-committee that has been working on this bill, I would like to explain a thing or two before we go on to this resolution. In the first place, the sub-committee could not under any circumstances discuss the question of fees with the Department of Public Relations or Public Assistance because they were not officers of the State Medical Society and they had no power to act. All we could do was to take an attorney with us who properly interpreted the law. This interpretation was verified by the opinion of the Attorney General of the State of Illinois. We then hoped that the Department would agree on the interpretation when they asked for clarification, which they did. Following that we went back to our representative offices and homes and had another conference. We found that Dr. English, who is a member of the Vermilion County Medical Society, sponsored House Bill 241 and Senate Bill 233. If these bills are passed and they will be passed if they obtain the assistance and help of the Illinois State Medical Society as a whole, the payment for services to recipients of old age assistance and to dependent children will be referred back to the supervisor in charge of each county. The Committee felt that it would be easier to deal with the local supervisor than with the State of Illinois. I am quite surprised that Dr. English who is a member of the Vermilion County Medical Society that sponsored these two bills would come up here and recommend that the Illinois State Medical Society should go on record as not sponsoring these bills. This is one way in which the medical profession of Illinois is going to have opportunity to get adequate fees. We talk about socialized medicine. Here is an opportunity to take it away from the state and place it in the hands of the doctors. We are going to remain in the low field of one dollar and fifty cents.

DR. HAMMOND: I feel certain that the delegates appreciate the Committee's report that we do not appose nor do we recommend passage of these bills. We do not ask the delegates to do so. We feel that legislative matters should go through the regular channels. If the doctor who just spoke would listen well, the Committee recommended that this go through the usual channels of the Legislative Committee. The Legislative Committee then will pass on to the membership of the Illinois State Medical Society their recommendation.

DR. RIEGER: If you will recall the brochure that you received from the Illinois State Medical Society, the Society has already passed on these bills and asked that they be passed.

DR. HAMMOND: There is just one other thought. Let us assume that this is controversial, that this Society went on record in favor of this bill and the bill is vetoed, then the Society is on the spot. If it is held in the Legislative Committee, it is a different matter. We are not urging against the bill. The support of this bill should come from the Legislative Committee.

DR. EDMOND BECHTOLD, Belleville: I believe we should be consistent. If we are going to work this way on medical assistance we should take the same stand on the county health

unit. The State Department of Public Welfare is presenting propaganda throughout the state of Illinois and the State Society endorses the Public Welfare's propaganda.

DR. FRANK DENEEN, Bloomington: In my county they voted out having anything to do with old age assistance and dependent children and said it would have to be taken care of by the supervisor. It looks to me as if this is also the supervisor's work.

DR. BECHTOLD: The gentleman is perfectly right. To a great extent it is the supervisor's work but apparently the Director of Public Welfare does not think so. He apparently does not accept the opinion of the Attorney General. It is necessary to hit him on the head to let him know that we must act on this properly.

THE PRESIDENT: Are you ready for the question? Do you understand the question?

(Because of the answer, "No," the President asked Dr. English to re-read the motion).

DR. P. J. McDERMOTT, Kewanee: What would this Senate Bill give us anyway? Does it take care of old assistance recipients when they die, that is the question?

THE PRESIDENT: It refers it back to the township for terminal illness.

DR. CHARLES H. PHIFER, Chicago: Those two bills include emergency medical care and not necessarily terminal illness.

THE PRESIDENT: The question is called for and I will ask for a standing vote.

Seventy-six voted for the adoption of the Committee's recommendation and four against it. The motion was carried.

DR. ENGLISH: Concerning resolution No. 8, The Committee feels that since part of the aim of this resolution is reported to have been accomplished, namely office visit fees have been, by agreement, raised, as of June 1, from $1.00 to $1.50 and the matter of other fees is still being discussed, it would be inadvisable to recommend this resolution at the present time. I move that this portion of the report be adopted. (Motion seconded by Dr. I. H. Neece, Decatur, and carried).

DR. HAMMOND: We come now to Resolution No. 9.

9. *OFFICERS, TRUSTEES OR FACULTY MEMBERS OF SCHOOLS WHICH DO NOT SATISFY THE "ESSENTIALS OF AN ACCEPTABLE MEDICAL SCHOOL" OF THE AMERICAN MEDICAL ASSOCIATION.*

(See Page 75)

Your Committee gave more than usual consideration and discussion to this resolution. We could see that there were some far-reaching ramifications and also some inconsistencies. In the first place, we observed that graduates from the schools indicated in the resolution are accepted as members of the American Medical Association. We are aware that by and large graduates of the schools referred to are accepted as members of the component state (county) medical societies. We have observed that not infrequently graduates of the schools referred to are being honored by being made president of their component medical societies. We are cognizant of the fact that graduates of the schools referred to in the resolution are sitting here as members of this House of Delegates. Another important fact discussed by the Committee is that a resolution of this type which is so far reaching has many amplifications and ramifications, and we wish to recommend that before a resolution of this kind is accepted by the House of Delegates it should be presented to the component societies. Therefore, your Committee recommends that the resolution be not adopted, and I so move. (Motion seconded by Dr. O. W. Rest, Chicago).

DR. N. S. DAVIS III, Chicago: I would say that if the recommendation of the Committee is carried, the constitution of the State Society should be amended. It is not elevating the standards of the State Society to have as members, faculty members or officers of schools that do not come up to the standards of the medical schools adopted by the American Medical Association. When a school has been in existence for five years it is not the fault of the graduates that the school is not up to par, it is the fault of the men who are members of the faculty. Those men are not living up to the constitution of the Illinois State Medical Society if such things are allowed to go on.

(Motion was carried with one opposing vote).

10. *PUBLICATION OF MINUTES OF COUNCIL MEETINGS*

(See Page 76)

DR. HAMMOND: Again your Committee

gave considerable discussion to this resolution. In the first place it appears to the Committee that there is no official standing to the delegate body. When we adjourn today, we are adjourning *sine die*. We are no longer delegates. In the second place, we feel that publishing the complete minutes and discussions of the Council would be not only cumbersome and lengthy, but would perhaps take up the larger part of the Journal. Thirdly, it is the recommendation of the Committee that the Council should use its discretion. At times when information should go out to the Society, a short abstract could be printed if the Council felt that the information is beneficial to the Society. I move that the recommendation of the Committee that matters of this kind be left to the discretion of the Council be approved. (Motion seconded by Dr. W. E. Kittler, Rochelle, and carried).

DR. J. S. NAGEL, Chicago: What is the recommendation of the Committee?

DR. HAMMOND: The Committee recommends that the resolution be not adopted, that it be left to the discretion of the Council to print from time to time a short abstract of information that is beneficial to the Society.

(Motion carried).

11. *ABUSES OF MEDICAL TESTIMONY*

Whereas, the questionable activities of some members of the medical profession, in medico-legal matters, particularly in reference to court appearances and especially to testimony given in personal injury suits, have aroused the suspicion of both the medical and legal professions that some individual physicians have, in collusion with and through the cooperation and encouragement of certain lawyers, stretched the truth at times and on occasion have resorted to dishonest statements while in court, under oath, thereby subjecting both the medical and legal professions generally to much undeserved yet highly unfavorable criticism by the public at large; and

Whereas, the many different procedures tried, in the past, to overcome this activity, have met with indifferent success; and

Whereas, a plan of action adopted by the Minnesota State Medical Association, and now known as the Minnesota Plan, has, through close cooperation with the Bar Association proven highly successful in combatting this undignified and unethical practice; and

Whereas, the Chicago Medical Society, on Tuesday, October 13, 1942, at a regular meeting of the Council took steps to institute a procedure to overcome this evil; therefore be it

Resolved, that the Minnesota plan, or some suitable modification of it, should be studied and adopted by the Illinois State Medical Society.

DR. HAMMOND: The Committee recommends the adoption of this resolution, and I so move. (Motion seconded by Dr. Charles H. Phifer, Chicago, and carried).

12. *MEDICAL CARE OF CIVILIANS IN WAR TIME*

Whereas, because of the number of medical men gone into the armed forces certain persons or organization for reasons best known to themselves have used this fact as an excuse for widespread propaganda to the effect that people are suffering or are likely to suffer for want of adequate medical care, and

Whereas, such propaganda is false and misleading because investigation has shown that people are deprived of care not because of its lack but because of this propaganda to the effect that medical care cannot be had. Such propaganda results in restraining people from calling the doctor when they are in need.

Therefore, be it resolved, that the Illinois State Medical Society announce to the citizens of Illinois that careful investigation has shown that all cases alleged to have suffered from lack of medical care, need not have suffered except for their disinclination to call the doctor, and further announce to the citizens of Illinois that the physicians of this state have so integrated their cooperative efforts that no one need suffer for lack of adequate care, and that we shall continue to supply to the citizens of this state adequate medical care in spite of this proaganda. Care may not be so promptly rendered nor so plentiful as in happier times, but it will continue to be adequate.

DR. HAMMOND: This resolution was written for and approved by the Council. Your Committee recommends its adoption. I so move. (Motion seconded by Dr. Charles H. Phifer, Chicago, and carried).

In conclusion, the Resolutions Committee would like to have you pass a motion to instruct the Secretary, Dr. Camp, to give official notes of thanks to all responsible for the arrangements of this 1943 annual meeting (an all inclusive motion). I so move. (Motion seconded by Dr. I. H. Neece, Decatur, and carried).

I move that the report of the Committee as a whole be adopted. (Motion seconded by Dr. R. H. Hayes, Chicago, and carried).

THE PRESIDENT: We have a member of our official family here who is the executive secretary of the Legislative Committee. I would like to have you meet him and know him. I would like to have a few words from Mr. John W. Neal.

MR. NEAL: I have no prepared report to present to you. The handbook carried the general report of the legislative activities to date. I believe in my absence on Tuesday, Dr. Hayes supplemented that report. I am sorry I was unable to be here until this morning. As luck would have it two of our most important measures were scheduled for hearing on Tuesday. They were completed and will be presented next week.

On the legislative picture the measures presented by the non-healing cults were the only ones with which we were concerned. There were a number of other matters with which we were concerned. It is my desire, as it is the desire of every member of the Committee, to carry out the wishes of this body and of the Council.

I would like to close by saying that a great many of you are probably acquainted with your legislators. I have had a great many members of the Legislature in Springfield tell me that they are much impressed by the contacts from doctors in their home towns. As I have said before, the average legislator does not give a tinker's dam what the Illinois State Medical Society thinks about a given problem, but he is very much interested in what the individual doctors in his home community think when he comes up for the next election. It is for this reason that I have hounded you to contact your congressmen so your Committee can come through with a clean slate. Naturally I am anxious that this my first year in Springfield should be a success and that I should come through without losing any bills.

THE PRESIDENT: We come to unfinished business and the Secretary tells me there is none, so we will pass to new business.

DR. O. L. BETTAG, Pontiac: I would like to call on Dr. Hamilton for his opinion on the bill before the Legislature on the county health unit and his reason for it.

DR. E. S. HAMILTON, Kankakee: Gentlemen, that is a very difficult question to answer. Sometimes many things enter into judgment. I think that is true in life, true in the practice of medicine, and true in what you decide about your position on various topics. This bill was discussed for many months and it was the opinion of the Council that there was little or nothing to be gained by opposing this county health unit bill. In addition to its popular appeal which certainly is not debatable, it was decided by the Council that it was not exactly advisable to oppose anything which has for its stated object the improvement of the health of the people of Illinois. Too often the medical profession is accused of sponsoring legislation and backing activities for the benefit of the medical profession and not for the benefit of the people of the state of Illinois. For many years the Council has taken the position that the first thing to be considered and discussed and the thing of paramount importance in all deliberations and in all opinions of the Council of the Illinois State Medical Society must be the people of Illinois. Second comes the physicians of Illinois and third, the Illinois State Medical Society. All these things entered into the decision to endorse this bill. I know what Dr. Bettag has on his mind. It has been in my mind as long as it has been in his. We are all suspicious of the encroachment of state medicine and those interested read it into every bill. It was the studied opinion of the Council that the bill should not be opposed. Since that was it I, as Chairman of the Council, concur with it.

This is an extemporaneous answer to this question. If I had a week to get ready I probably could give you a better one. I do not know whether I have answered your question. I have tried to be frank. If you want any more feel free to talk to any member of the Council, not only the Chairman.

DR. BETTAG: Thank you Dr. Hamilton.

DR. JAMES H. HUTTON: I wish this House of Delegates might pay tribute to two people who helped to make this meeting a success. Dr. S. D. Zaph has been responsible for seeing that all members registered. Mrs. Fraser is largely responsible for the success of the President's dinner. She has done almost the impossible of making the money balance. I move a vote of thanks to both of them. (Motion seconded by Dr. W. S. Bougher, Chicago).

THE PRESIDENT: The Chair would like to amend that motion to include a rising vote of thanks to Dr. Zaph, Mrs. Fraser and Dr. Hutton. We are voting on the amendment that thanks be given to Dr. Hutton. (Amendment carried). We are voting on the original motion. (Motion carried by a rising vote).

The next order of business is the election of Emeritus members.

THE SECRETARY: It is rather unusual to have such a long list and all of them from the Chicago Medical Society.

Dr. Charles A. Albrecht, 1820 S. Halsted Street, Chicago

Dr. Frederick O. Bowe, 845 Buena Avenue, Chicago

Dr. K. A. Danell, R. 8, Box 156, Phoenix, Ariz.

Dr. George J. Dennis, Drake Hotel, Chicago

Dr. A. E. Dennison, 21 N. Parkside Avenue, Chicago

Dr. E. K. Findlay, 2231 E. 67th Street, Chicago

Dr. Robert H. Good, 517 Thatcher Avenue, River Forest, Ill.

Dr. James Graybeal, 7114 Normal Blvd., Chicago

Dr. J. J. Hood, 5222 W. 24th Street, Cicero, Ill.

Dr. Findley D. John, 180 N. Michigan Avenue, Chicago

Dr. John M. Lang, 843 Monroe Street, River Forest, Ill.

Dr. John Leeming, Palmer House, Chicago

Dr. Thomas I. Motter, 231 N. Kenilworth Avenue, Oak Park, Ill.

Dr. Alfred N. Murray, 6117 Kenmore Avenue, Chicago

Dr. Ward E. Potter, 136-26th Avenue, N.E., St. Petersburg, Fla.

Dr. W. F. Scott, 200 S. 18th Avenue, Maywood, Ill.

Dr. Louis Schultz, 617 William Street, River Forest, Ill.

Dr. W. N. Senn, 1255 N. State Street, Chicago

Dr. Joseph Semerak, 1171 S. Oak Park Avenue, Oak Park, Ill.

Dr. Irving J. Straus, 5238 Kenwood Avenue, Chicago

Drs. Potter, Senn and Bowe were elected to retired membership by the Chicago Medical Society. Dr. J. J. Hood also desires affiliate Fellowship in the American Medical Association and if this House so recommends we will present his name at the meeting of the House of Delegates of the A.M.A. on June 7. I would like to move that these emeritus memberships be granted and that Dr. Hood be recommended for affiliate Fellowship in the A.M.A. (Motion seconded by Dr. C. E. Wilkinson, Danville, and carried).

DR. O. L. BETTAG, Pontiac: I wish to express my deep appreciation for the heroic work done by the chairman of the sub-committee. He has worked untiringly in behalf in its behalf. This was done almost without support of anyone but the committee. I wish you to know that as a result of his efforts that medical forms have been simplified. There is now in the Division of Public Assistance a truer appreciation of the general practitioner's point of view. There is some discussion on and there is a possibility of payment for terminal medical services and also some discussion of direct payment to the ones who participate. I move a rising vote of thanks to Dr. K. B. Rieger. (Motion seconded by Dr. V. A. McClanahan, Aledo, and carried).

THE SECRETARY: It is always customary at the close of the meeting of this House of Delegates to read the recommendations of the Committee on Awards.

Group I: *Scientific*: The bronze medal was awarded to Edith L. Potter and F. L. Adair, Chicago Lying-in Hospital and the Illinois Department of Public Health, Chicago, for their exhibit on "Erythroblastosis Fetalis."

Certificates of Merit were awarded to the following:

1. The Women's Field Army of the American Society for the Control of Cancer, for the exhibit, "The Value of Mice in Cancer Research."
2. E. W. Hagens, Department of Otolaryngology, Northwestern University Medical

School, Chicago, for the exhibit, "Anatomical Presentation of Bronchial Tree from Endoscopic Standpoint."

3. V. D. Lespinasse and Victoire Lespinasse, Department of Urology, Northwestern University Medical School, Chicago, for the exhibit, "Studies on Kidney Function; Extravasation of Urine; Bladder Regeneration."
4. I. Schour, D.D.S., and H. G. Sarnat, D.D.S., University of Illinois, Chicago, for the exhibit, "Oral Manifestations of Occupational Origin."

Group II. Practical and Educational: The bronze medal was awarded to George B. Callahan, Waukegan, for the exhibit, "Unifying Medical Services in Lake County. — A Plan and Practice Using Navy, Army, Veterans' Administration, Industrial and Civilian Medical Personnel and Material."

Certificates of Merit were awarded to the following:

1. G. Henry Mundt, Chicago, for the exhibit on "Epidemic Kerato-Conjunctivitis."
2. F. H. Falls and Miss C. S. Holt, University of Illinois College of Medicine and the Illinois Department of Public Health, Chicago, for the exhibit on "Hemorrhage."
3. Harold A. Vonachen, Peoria, for the exhibit, "Caterpillar Tractor Company Health Program During Time of War."
4. K. E. Barber, Children's Memorial Hospital, Chicago, for the exhibit. "Pyelography in Retroperitoneal Tumors in Children."

THE PRESIDENT: I personally want to thank the men who put on this scientific exhibit and I know all of you do. It represented a lot of work in these times. It represented a large expenditure of money. We thank you.

At this time I want to thank the members of the Illinois State Medical Society and I want to thank the House of Delegates for the honor they have given me by asking me to be your President for the past year. It has been a lot of fun. I really have had a good time going around the state meeting the different men whose names I did not remember very well. So if I do not call you by name it will not be for any lack of respect on my part. I still have not accumulated that kind of knowledge that enables me to have a receptive memory for names. I have enjoyed this year serving as your President. I have not done such a very good job. I made a lot of mistakes. I ask you to forgive me for those mistakes. I have just gone along and tried to do the best I could, attending the different meetings and trying to be educated up to the position that I now relinquish with a lot of feeling to another man who spells his name with four letters. He did not come from Michigan but he did come from a farm. He was born in a farming community up at Milton, Wisconsin where sometimes they farm but I had a suspicion that George sometimes went fishing a good many times in those lakes. Having got kicked out of the Wisconsin schools he went to the Alfred Academy at Alfred, N. Y. and after getting pretty well educated he got his B.S. degree at little Milton College at Milton, Wisconsin, and later his M.A. degree at the same College. He got his M.D. degree in 1909 at the University of Illinois. He is a Fellow of the American College Surgeons, he is certified by the American Board of Surgery in the Founders Group, he is associate professor at the University of Illinois College of Medicine, and attending surgeon to the West Suburban Hospital. Lastly, he is a darn good surgeon, a darn good doctor, and a darn good friend. I am very happy and very proud and very glad to turn the gavel over to him at this time because I know your interests will be looked after as well as they possibly can in every respect. He will give unstintingly of his service and advice. It has been a pleasure to work along side of him this last year. It is a great pleasure to present to you, Dr. Post, this gavel. I will put into your buttonhole this badge designating you as President of the Illinois State Medical Society.

DR. POST: Mr. President and Members of the House of Delegates and of the Illinois State Medical Society: While appreciating the very great honor which all this entails, I feel still very humble. I feel that it carries with it great responsibility which no man himself is able to carry. I am unable to carry it myself, and I bespeak from you the heartfelt interest and support which you have accorded to my predecessor. I shall need it. Without it no man can succeed in any such office. The responsibility of it overwhelms me more than it did a year ago,

when I received the vote that gave it to me. Therefore, bespeaking all support and interest I will proceed to further the various interests as they appear before us, hoping that in all we do we may accomplish most constructive things for the Society and with your help and as your servant and not in the ordinary official capacity, I hope to succeed. It is a matter of work for all of us. We must keep forging forward as we have in the past. I am asking you for support.

DR. J. S. NAGEL, Chicago: I had a few remarks to make. From time immemorial, the memory of man running not to the contrary, and like a babbling brook I run on forever — for many years it has been my privilege to extend a rising vote of thanks to the retiring president for his kindly, efficient and fair manner in which he conducted the business of the House of Delegates. Gentlemen, I ask a rising vote. (Motion carried by a rising vote).

DR. POST: After extending also to Dr. Weld your thanks and my thanks for what he has done in this particular session, I call for a motion for adjournment.

DR. V. A. McCLANAHAN, Aledo: I move we adjourn *sine die.* (Motion seconded and carried).

The House adjourned at 12:30 P.M.

FIND PENICILLIN EFFECTIVE WHERE SULFONAMIDES FAILED

Investigators Report On Results Of Its Use In Three Patients With Gonorrhea That Was Resistant To Older Treatment

Effective use of penicillin in 3 patients with gonorrhea, in whom the infection was completely resistant to what might be considered adequate treatment with sulfonamide preparations, is reported by Wallace E. Herrell, M.D.; Edward N. Cook, M.D., and Luther Thompson, Ph.D., Rochester, Minn., in *The Journal of the American Medical Association* for May 29.

Penicillin is a recently discovered substance, obtained from a mold, which has been found to have remarkable powers in combating certain types of infections.

The three men say that their experimental evidence "immediately suggests that penicillin should prove effective in the treatment of clinical infections due to these sulfonamide resistant bacteria. . . .

"Because of the limited amounts of penicillin available, we feel that penicillin therapy [treatment] should be reserved and studied further in those cases in which the infection is resistant to the accepted forms of treatment now being used. . . ."

They found that the several strains of the organism "are inhibited completely in fairly high dilutions of an active form of penicillin. Bacterial cultures reveal that the number of organisms is decreased greatly at the end of one or two hours' contact with penicillin. Between the second and third or third and fourth hours in contact with penicillin no viable [living] organisms were found. . . .

"The complete absence of toxicity following the intravenous [into a vein] administration of pyrogen [fever-producing] free penicillin, the lack of any discomfort to the patient and the rather rapid disappearance of the clinical symptoms have been observed in three cases of sulfonamide resistant gonorrheal infections. In all the cases reported, in addition to the clinical response noted, negative bacterial cultures were obtained sometime between seventeen and forty-eight hours after the institution of penicillin therapy."

The investigators point out that penicillin, in addition to being antibacterial for the organism, is excreted rather rapidly in the urine. They found that "between a third and a half of the material is excreted through the urinary apparatus. This is, of course, highly desirable in the treatment of infections of the type being considered. The high degree of solubility of the material also permits it to reach the involved tissues readily."

TRICHINOSIS FROM BEAR MEAT

A case of human trichinosis following the eating of bear meat is reported in *The Journal of the American Medical Association* for May 22 by Robert S. Westphal, M.D., Albany, N. Y. It is generally considered, he says, that 90 per cent of human trichinosis occurs as a result of the ingestion of pork. Although several infections from bear meat have been reported from California, Dr. Westphal believes his is the first case from New York state.



Honor Roll

DOCTORS IN SERVICE WHOSE NAMES
HAVE NOT APPEARED IN EARLIER LISTS

BY NAME AND COUNTY

Ascher, John Peter, Cook
Arnold, Nita Mieth, Cook
Balcke, Louis A., Tazewell
Barak, Herbert G., Lee
Baratz, J. Joseph, Cook
Barber, Kent W., Adams
Barnes, Broda O., Cook
Behrents, Ellis G., Cook
Beecher, M. C., Knox
Bellucci, John B., Cook
Benedek, Tibor, Cook
Benensohn, Solomon J., Cook
Berard, LeRoy H., Cook
Berger, Edward M., Cook
Berger, Louis, Cook
Berlin, Louis, Cook
Bernstein, Elmer I., Cook
Block, Walter Eugene, Cook
Bolman, R. Morton, Cook
Bonebrake, Harold V., Cook
Borden, George, Adams
Bos, Louis H., Cook
Brady, John Morrison, Cook
Brennan, John F., Cook
Brinton, Edward S., McDonough
Brown, Hyman N., Cook
Bussey, Frederick N., Cook
Caddick, Richard P., Adams
Cardenas, Valentin O., Cook
Carter, C. L., LaSalle
Chern, Bernard Victor, Cook
Cinelis, Adolph Richard, McHenry
Cole, Bart, Peoria
Colletti, Michael J., Cook
Cook, Franklin, Cook
Day, Ernest C., Cook
Deering, David M., Lake
DeFeo, Herman F., Cook
DeMetrovich, Frederick F., Cook
Demski, Casimir, Cook
Deplewski, Leo Mark, Cook
Ditowsky, Samuel Irwin, Cook
Dorr, Edward M., Cook
Dostal, Lumir E., Cook
Douglass, Thomas C., Cook
Draeger, Louis A., Cook
Engle, D. E., Du Page
Etherton, Fred S., Jackson
Fauley, Gordon B., Cook
Feldman, Edward G., Columbus, Ohio
Feldser, A. Vernon, Cook
Ferrell, Robert V., Saline
Fill, Leon, Cook
Finkle, Albert M., Cook
Finola, George C., Cook
Finsky, Morris, Cook
Fliesser, Werner, Vermilion
Flint, Weldon Collins, Peoria
Foster, John Wesley, Cook
Foltz, Herbert Leo, Cook
Foulke, Lawrence E., McHenry
Francona, Anthony, Cook
Frankel, Leonard, Cook
Freriks, Dick J., Cook
Friedman, Louis B., Cook
Friefeld, Nathan, Cook
Garnello, John M., Cook
Gearhart, Dwight I., Cook
Gehring, Harold Walter, Champaign
Gilson, Benjamin, Brooklyn, N. Y.
Gish, E. R., Saline
Gladstone, Lee, Cook
Glassman, Frank, Cook
Goodfriend, James, Cook
Gray, O. Earle, Cook
Greeley, Paul W., Cook
Greene, Warren W., Cook
Grissom, Raymond F., Cook
Grove, Jacob S., Cook
Guest, Samuel I., Cook
Gutheil, Byron, Cook
Haas, John P., Cook
Hammond, J. F., Cook
Harter, Joseph A., Cook
Heritage, Wade F., Cook
Hildebrand, Eugene Jr., Cook
Hirchfield, S. A., Lake
Hirsh,Edwin I., Cook
Hoffman, Philip, Cook
Hoover, Allen H., Cook
Hubrich, Leon R., Cook
Huffman, John W., Cook
Humm, John J., Cook
Hunter, Arthur F., Cook
Hurwitz, Reuben, Cook
Ingram, Myron I., Cook
Iseberg, Russell G., Cook
Izbicky, Naftula, Ogle
Izzo, Joseph L., Cook
Jaczynski, Hilbert A., Cook
Jaffray, David S., Cook
Jenkins, Alexander, Cook
Johnson, Carl A., Cook
Johnson, H. G., Clark
Johnson, Spencer, Kane
Johnson, William E., Cook
Jonas, William P., Cook
Jones, Marshall H., Cook
Jones, Thomas D., Cook
Jordan, John W., Cook
Just, Joseph H., Cook
Kallal, Thomas, Cook
Kannapel, William Oren, Peoria
Kass, Harold M., Cook
Kapov, Kozme Francis, Cook
Katzenstein, Frederick Carl, Marion
Kearney, Richard D., Cook
Keeley, Robert E., Cook

Klawans, Harold L., Cook
Knopp, Maurice N., Cook
Knudson, Joel Wm., Cook
Kodl, Francis, Cook
Koneski, Chester F., Cook
Koziol, Stanilaus M., Cook
Kuentz, Ransom E., Du Page
Kunsch, L. J., Du Page
Kushner, Abraham, Cook
Lambertus, Paul T., Adams
Landy, Ernest, Union
Laury, Everett W., Cook
Laymon, Gayle Harold, Champaign
Leahy, Thomas E., Cook
Lehner, Robert Harold, Cook
Lenit, Harold W., Cook
Lerner, Benjamin H., Cook
Lerner, Milton
Leshin, Norman, Cook
LeVan, Franklin P., Cook
Levin, Samuel A., Cook
Levy, Robert Charles, Cook
Lewandowski, Henry C., Cook
Lichenstein, M. E., Cook
Liebling, Joseph, Cook
Linkowski, Izrael, Cook
Lipnik, Benjamin, Cook
Loverde, Albert A., Cook
Lukasek, Alfred E., Cook
Lundgoot, L. E., Cook
Lustgarten, Earl M., Cook
MacLeod, Sidney James, Cook
Manelli, Louis A., Cook
Manelis, Samuel L., Cook
Mansowit, David, Cook
Marks, Jacob L., Cook
Marks, Louis M., Cook
Markoutsas, George C., Cook
Martens, Edward John, DuPage
Maschmeyer, R. H., Peoria
Mason, Lorne Wilfred, Cook
Mastri, Aquil, Cook
Mathis, Alvin Leroy, DuPage
McDonald, James Alexander, DuPage
McGuire, Philip R., Cook
McGrath, Philip R., Peoria
McLennon, Peter J., Cook
McMahon, John V., Cook
McMillan, Robert G., Cook
Miller, Walter, Will
Minnema, Clarence, Cook
Mead, Newton C., Cook
Mehlman, Jerome S., Cook
Miller, C. O., Cook
Miller, Donald S., Cook
Modzikowski, Thaddeus, Cook
Morris, Charles I., Cook
Moore, Jean W., Vermilion
Mosny, Stephen D., Cook
Mrazek, Charles, Cook
Mullen, Vincent F., Fulton
Munn, Alfred A., Cook
Murphy, Cornelius E., Cook
Neiman, Aaron, Cook
Nicholson, Charles T., Calhoun
Nock, Wesley S., Cook
Nowak, John M., Cook
Oldberg, Eric, Cook
Olivieri, Ernest Pasquale, Cook
Olson, Franklin A., Cook
Packard, James Wight Jr., Cook
Pallasch, Gervaise P., Cook
Palmisano, Dominic A., Cook
Palutsis, Stanley R., Cook
Parker, Charles D., Cook
Paull, Murry M., Cook
Pavlin, Otto B., Cook
Pavluk, Peter, Cook
Peffer, John R., Cook
Peters, Clifford H., Cook
Petrone, Rosco Edward, Cook
Petrone, Joseph A., Cook
Pfeiffer, Carl F. H., Adams
Pierce, Mila I., Cook
Pilot, Jean, Cook
Piper, Charles H., Cook
Pixley, John Stage, DuPage
Poucher, George Edward, Cook
Prusait, Walter, Cook
Puris, Abraham M., Cook
Rackleff, M. M., Adams
Rappaport, Henry, Cook
Regnier, Walter O., Tazewell
Reich, Walter J., Cook
Rheingold, Joseph, Cook
Richburg, Louis A., Cook
Richter, Irving B., Cook
Rideout, Wm., Stephenson
Ritter, Israel Irving, Cook
Roberg, Norman B., Cook
Robovits, Frank E., Jr., Cook
Roe, Charles T., Cook
Rosenberg, Harry, Cook
Rubenstein, Boris Benj., Cook
Rubenstein, Joseph, Cook
Rubert, Samuel Rubin, Cook
Rubin, Simon S., Cook
Ruda, Laurence, Cook
Russell, Joseph, Cook
Rutherford, Robert H., Macoupin
Ryder, Bruce Ivan, Marshall
Sankstone, Manning I., Cook
Sarnoff, Herbert S., Cook
Sbertoli, Maurice William, Cook
Schapiro, Isadore E., Cook
Schick, Armin F., Cook
Schmehil, Edward J., Cook
Schriver, J. S., Cook
Schroeder, Harold M., Livingston
Schwartz, Merle Harold, Cook
Schweiger, Leo J., Cook
Sculley, Jesse C., McHenry
Secunda, Herman Harold, Vermilion
Segal, Morey M., Cook
Sehring, George H., Will
Seid, Ben, Cook
Seidelmann, Otto Frank, Cook
Shapiro, Bernard, Union
Shurtz, William G., Cook
Simon, Albert J., Cook
Simonaitis, John J., Cook
Sirles, Wayne Pulley, Williamson
Sittler, William W., Cook
Slattery, Thomas, Cook
Slevyan, Albert H., Cook
Smith, Everett J., Cook
Snyder, Morris, Cook
Somerville, William, Cook
Stack, Eugene A., Cook
Staton, Younger A., Cook
Steinle, Clifford John, Cook
Stenn, Fred, Cook
Sternes, Frank Charles, Cook
Stevens, Roland E., Jr., Cook
Stites, Hugh D., Mercer
Stone, Joseph G., Cook
Stormont, Marion F., Cook
Strauss, Herman A., Cook
Stucker, Fred J., Cook
Sullivan, Francis John, Cook
Sullivan, Clifford P., Cook
Susser, Maxwell, Cook
Sykes, Robert Hart, Cook
Talbert, W. A., Macon
Tann, Leo, Cook
Tarry, George W., Cook
Thegze, Charles Gregory, Cook
Thill, John C., Jr., Cook
Thompson, N. A., Saline
Toomajan, Harry, Cook
Tourney, Guy Louis, Adams
Towle, Victor M., Cook
Tucker, Joseph, Cook
Twente, George Edward, Alexander
Udesky, Isadore C., Cook
Vacin, Milo E., Cook
Van Verst, Paul H., Cook
Vitacco, John Joseph, Cook
Wagner, Ben E., Cook
Waldmann, Leonard F., Cook
Waldo, Proctor C., Cook
Warnick, Edward George, Cook
Weinberg, Jack, Cook
Whitaker, Walter M., Adams
White, Raymond B., Cook
Wippern, Virgil, Cook
Woltman, George R., Cook
Yazarian, Armen N., Peoria
Zeller, Michael
Ziemer, Martin F., Cook
Zimmerman, Leo M., Cook
Zmugg, Andrew Joseph, Kane

Industrial Health

Committee On Industrial Health — Frederick W. Slobe, Chm., 2024 South Western Ave., Chicago, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington.

CONCERNING THE RELATIONSHIP OF THE FAMILY PHYSICIAN TO ABSENTEEISM*

Dr. Andrew M. Babey, Chief Medical Examiner of the Sperry Gyroscope Company, Brooklyn, New York, recently sent a letter to the Journal of the American Medical Association. This letter expressed so many pertinent facts that it is quoted in full:

"There is at present a great deal of justified comment on the widespread problem of absenteeism in war industry. A number of clear studies have demonstrated that the question is not simple and demands an attack from many different sides, a very important one being the rejuvenation of the workers' sense of pride and responsibility.

"There is, however, one phase of this inquiry, relatively small yet important, which is generally overlooked and which can be handled, in large measure, by the family physician. Briefly stated, the real contribution he can make is to take a just, firm stand on requests for "certification."

"These requests fall roughly into three types, which I will describe in the order of their importance:

"Request for leave of absence because of illness: The generous family physician too often recommends long holidays for minor disorders. A recent example comes to mind. A young woman came to the hospital with a note from her doctor asking that she be granted four to six weeks leave of absence for laryngitis. Careful examination by a certified specialist revealed trivial congestion of the vocal cords. The patient was informed that such a leave could not be granted and she stormed out of the hospital in a fit of anger. Numerous similar instances could be cited in which holidays ranging from two to four weeks have been requested for slight, easily corrected disorders. It is not only unpleasant but, for various reasons, also quite imprudent to contradict the family physician; yet this often has to be done. In this emergency it is the function of every physician to see to it that healthy workers are kept on the job as regularly as is humanly possible.

"Request for change of shift, the second source of trouble: Most people do not care to work at night. They will think of every conceivable medical excuse and ask the busy family doctor to certify it. In one 'the night air is unhealthy'; in another 'it strains his eyes'; in another 'it aggravates constipation'; in still another 'it is causing bronchitis.' When such requests are denied by the industrial physician, discontent and a feeling of unfair treatment are created. As a result, workers are determined to 'get even' at the first opportunity and take unwarranted time off. A few sympathetic moments with a firm, unprejudiced family doctor could eliminate this source of friction.

"Request for change of job, the last common trouble maker: It is astounding to note how readily the family doctor certifies that certain fumes, gases, vapors or dusts (about which the patient is poorly informed) are 'dangerous' and 'poisonous' to the patient, who must immediately be removed to another safer job. It is hardly necessary to point out that every possible precaution is taken in modern plants to safeguard the worker against hazardous exposure. By simply inquiring by telephone what material is used, what the hazard really is and what precautions are being taken, the family doctor can avoid panic, confusion and unnecessary 'layoff' to 'clear the body' of these alleged poisons.

"These special problems are aired with no critical or malevolent intent. The family physician is extremely busy these days and can hardly be expected to be aware, always, of the difficulties of wartime industry. My plea is simply this: Let there be more cooperation between the local and the plant physician. With more consultations there will be fewer conflicts and more man-hours saved."

*Jour. A. M. A., June 5, 1943.

The following excerpts are from Volume 1, No. 2 of "What's New in Industrial Hygiene" published by the State Department of Public Health through its Division of Industrial Hygiene.

HEALTH HAZARDS IN MAGNESIUM FOUNDRIES

The November 1942 issue of the Journal of Industrial Hygiene and Toxicology reports a study of atmospheric contamination in magnesium casting operations. Aside from the usual foundry dust problem, magnesium foundry workers may be exposed to fluorides, magnesium oxide fumes, sulfur dioxide, chromic acid and carbon tetrachloride. The fluoride and sulfur dioxide exposure arises from the use of oxidation inhibitors; the chromic acid exposure from the chrome pickle used as an anti-corrosive treatment; the carbon tetrachloride exposure from the use of this solvent in spraying chills; and magnesium fumes from the molten metal. Of all these atmospheric contaminants, the most significant was found to be the fluoride fumes. These fumes were greater in the shakeout operation in which the average exposure greatly exceeded the suggested safe maximum limit of 20 mg./10 cu.m.

In controlling the exposures in magnesium casting, ventilation is necessary at shakeout operations, chrome pickle tanks and spraying chills with carbon tetrachloride. Respiratory protective devices and other well known engineering measures can satisfactorily control these exposures.

HAZARDS IN MANUFACTURE OF SYNTHETIC RUBBER

In the near future, synthetic rubber of the Buna type, i.e., copolymers of butadiene and acrylonitrile (Buna N) or of butadiene and styrene (Buna S) will be produced in larger quantities. The health hazards associated with this production are largely limited to the handling of, or vapor exposure to, acrylonitrile. Other materials used include soap solutions, organic emulsifiers, and electrolytes for demulsification.

In general, the steps in production are: (1) pressure reaction; (2) stripping of excess reactants; (3) coagulation of polymer; (4) dewatering and washing; (5) drying; and (6) compression of polymer.

From storage of raw materials to coagulation, closed equipment is used. However, the reactor must be cleaned manually after each batch is dumped. Before a man enters it, the tank should be purged with at least 10 air changes discharged outside any building. The man working in the tank should wear rubber footwear and gloves, as well as a life-line manipulated by another person outside the tank.

Where acrylonitrile is used, the coagulation tank, usually partially open, should be ventilated to provide 100 fp.m. inward velocity at the opening. This same amount of inward velocity should exist at all openings of the drier, where residual nitrile will be evaporated with water. The intermediate step, dewatering, should be well ventilated if open equipment is used. Centrifuges particularly may disperse vapor or mist into the air. Ventilation or tight enclosure should be provided. Beyond the drying operation, no known hazard exists.

Fire and explosion hazards are obvious in connection with the raw materials. A further possible acute exposure to acrylonitrile would follow breaks or leaks in equipment. Should severe leaks occur, gas masks must be available for use to reach valves, and spilled nitrile should be washed down the drain with copious water. Contact with the liquid must be avoided.

WARTIME INDUSTRIAL HEALTH PROBLEMS

Wartime production has evolved certain new or modified health problems. Some of the more important of these are as follows:

1. There is increased usage of cutting oils, compounds, and chemicals, many of which are capable of causing the industrial dermatoses.
2. Grinding operations have multiplied and these entail exposures to alumimum oxide, silicon carbide, and other grinding materials. While the dusts from grinding operations have not been regarded as harmful to health, disabilities occurring in workers so exposed are coming to be regarded as compensable.
3. Shot blast operations are being replaced by sand blasting, and new installations of

this nature are consistently using sand.

4. Sulfur and fluoride fluxes in magnesium foundries.
5. In an effort to speed up pickling operations, there is a tendency to increase the concentrations of acids in the pickling tanks. with consequently more contamination of the air with fine droplets of the acids.
6. Solvents are becoming more widely used and certain of the newer ones are purported to be non-toxic. Inasmuch as most of them are in the chlorinated hydrocarbon group of chemicals, they can be assumed to be more or less toxic.
7. Paint spraying operations are being modified, requiring radical readjustments in ventilation procedures.
8. There is a tendency toward longer working hours and consequently longer hours of exposure to harmful materials and shorter periods of recuperation.
9. It is becoming more and more necessary to employ women, older men, and young men who are not eligible for military service, many of whom require selective placement which is a function of the plant medical service.
10. It is necessary that the medical service in the war industries be integrated with the emergency medical service of civilian defense. Details necessary to this objective are not understood by the industrial physicians as yet.
11. Benzol is being used in increasing amounts as a substitute for toluol.
12. The return of lead paints required in government specification.
13. Priority difficulties in securing ventilation equipment.

WOUNDS

Mechanism of Cross Infection of Wounds in Hospital by Haemolytic Streptococci. Reba E. Willits and R. Hare, Canad. M. A. J. 45:479 (Dec.) 1941.*

According to Willits and Hare, surveys of the skin and bedding of patients with infected wounds indicate that hemolytic streptococci are present on many areas of a patient and his surroundings which are usually considered to be free of them. Therefore the chances of conveying infection by the hands of nurses, surgeons and dressers or instruments handled by them are far greater than is usually supposed. The air around patients, even ones with small wounds, may be polluted, and the chances of causing infection in other wounds by air-borne transport of infected particles is correspondingly increased.

That the margin of safety for ward infection of wounds in a ward is extremely narrow is adequately demonstrated by the increase in the amount of sepsis which occurs in wartime, when wards become crowded, ventilation is inadequate and the overworked personnel are too few.

Why the margin of safety is so narrow is clear from the fact that the patient and the whole of the contents of a bed containing a patient with an infected wound are suspect and may be potentially infective for other patients. The skin, the nasopharynx and the bedclothes harbor potentially pathogenic strains of infecting organisms. The infectivity does not cease at the periphery of the bed; it extends as a miasma in the air around and about it; the air-borne organisms probably reach the air when the bedclothes are being shaken as the bed is made. This occurs in the case of small trivial wounds as well as with large open wounds. Thus, infection may be transmitted not only by air currents but by the hands of the nurse or the surgeon who touches the bedclothes, bathes the patient and dresses his wound and, without washing the hands, attends an uninfected wound. Even the outer layers of the dressings which are handled without hesitation by nurses and surgeons may be contaminated.

The obvious inference is that under no circumstances should a patient with an infected wound remain in the same ward with patients with clean uninfected wounds. It is true that transfer of infection from patient to patient seldom occurs during peacetime. This relative immunity in peacetime is probably due to the fact that there is usually adequate cubic air space per bed, ventilation is efficient and more than one infected wound is seldom present in any ward. But with the almost inevitable hurry and overcrowding in wartime the barriers break down. The suggestions recommended for the handling

*War Medicine, May 1943.

of infected wounds in civil and military hospitals include the provision of a wing for all patients with any sign of infection, provision for the segregation with bacteriologic control of all patients and personnel with nasopharyngeal infections and the division of the nursing and surgical staff, so that no one attending a patient with an infected wound will come into contact with a patient with a clean wound.

Alternative measures (the treatment of the bedclothes with liquid petrolatum, oiling of the floors, ultraviolet irradiation of wards and similar measures) seem to the authors to be too clumsy and elaborate for general adoption, particularly under conditions of modern warfare. Moreover, there is no guarantee that under the stress of the conditions of war they might not break down. Therefore, segregation of all patients with infected wounds appear to them to be simpler and more likely to be of value. Its only drawback is that administratively it appears to be difficult, but this objection is not valid.

EXPERIMENTAL BURNS*

Elman and Brown, studying the effects of graded and controlled thermal stimuli on deeply anesthetized dogs, found that the exudation period, as measured by the hemoconcentration curves, was about 14 hours, followed by a 14 hour return to normal (in non-fatal burns). The authors realize that, in humans, this period may not infrequently be over twice as long (up to about 72 hours to return to normal).

Lischer and Elman, in experiments on dogs, demonstrated a material lowering of the degree of hemoconcentration by the use of local elastic pressure. However, the mortality rate was unaltered. The failure to affect the mortality rate may be due to the fact that the burns were severe enough to cause a hematocrit reading of 140% of normal even in the treated dogs, and the possibility of other lethal factors besides fluid loss.

*War Medicine, Vol. 3, No. 5, May 1943.

POSTWAR RELIEF

In the three years following the last war more people died from famine and preventable disease than were killed in the war itself, hence the importance attached to the present organization of postwar relief. The principal regional medical officer, British Ministry of Health, holds that the lives and health of millions in Europe as well as the physique and welfare of a generation to come depend on how well this preparatory work is done. He visualizes four principal problems — the provision of food, the supply of medical necessities, the control of such diseases as typhus, malaria, tuberculosis, and dysentery, and the reestablishment of the medical hospital, and public health services in each country. — *Ed. Jour. Royal Inst. Pub. Health & Hyg.,* (Mar.) 1943.

During four years 1937-1940 tuberculosis caused more deaths in the United States than were caused by all the battles of all the wars in which this country has been engaged, beginning with the Revolutionary War and continuing through the first World War. Robert Plunkett, M.D. N. Y. State Dept. of H., Bull. Feb. 1943.

The duty of the obstetrician is clear. Obviously he must discover, or if necessary have an internist discover, any communicable, active tuberculosis in his pregnant patient. If he knows such active infection to exist, he must isolate the baby from the mother immediately after delivery. Whether or not interruption of the pregnancy is indicated depends upon the individual case, as does the advisability of avoiding future pregnancies.

The Contact Infection Committee of the Academy of Pediatrics in November, 1942 added tuberculin testing and chest roentgen raying of pregnant women to its program for the eradication of tuberculosis in children. Does this mean that pediatricians are telling obstetricians what to do? No — just urging, or shall one say beseeching?

Now the idea that "a positive tuberculin test in an adult means nothing" has long since been abandoned. It means that the chest should be X-rayed and, if anything significant is found, the sputum, if obtainable, should be examined for tubercle bacilli. And in whom is such procedure more important than in the pregnant woman? And to whom is it more important than to her newly born baby?

Objection may be properly raised that a strongly positive intradermal tuberculin test (perhaps 5 to 10 per cent more accurate than the Patch test) could light up aquiescent process and result in harm to both mother and child. Where this is feared, the Patch test should be performed. Park J. White, M.D. Jour. Mo. State Med. Assn., Mar., 1943.

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

COUNTY MEDICAL SOCIETY NEWS

Macon County Medical Society devoted its July 2nd meeting to celebrating the fiftieth anniversary in the practice of medicine of Doctor William Bell. He was presented the 50 year certificate and button of the State Society and was honored in short talks by several of his contemporaries. The presentation was made by Dr. Will C. Wood, a long-time friend. Dr. Bell gave a short acceptance speech in which he covered his fifty years of practice, emphasizing the particular medical advances which had taken place. About 40 members of the Society were present.

Regular monthly Scientific Meetings of the Macon County Medical Society will be resumed on September 21st, the third Tuesday evening of the month. A most interesting program is being planned.

Greene County Medical Society is planning a joint meeting with the dentists of the County at White Hall in September. This Society has a membership of 15 which includes every doctor in Greene County.

The Secretary of Menard County Medical Society reports that the members of this Society are all past the age to be in the Service and that Dr. Charles Hamil of Greenview is the only member of the Fifty Year Club. He reports that it will probably be two or three years before any other doctors become eligible for this distinction.

Aux Plaines Branch of the Chicago Medical Society has some interesting news to report from its men in Service, as follows:

"Major Sidney Raymond of the 25th Evacuation Hospital, the West Suburban Unit, is at present on duty on an island in the Southwest Pacific. He writes that the hospital is now permanently established and is functioning as planned. Roads have been completed over the island and are patrolled to keep from violations of the speed limits. They are now in the middle of winter which is the dry season and the temperature is moderate and the rainfall is much as it is here. With their complement of nurses the hospital has become the social center of the South Seas. The health of the outfit is reported as being excellent.

"Lieut. Com. Raymond F. Grissom writes from Washington where he is serving in the Dispensary at the Navy Yard that among his colleagues are Louis Draeger, Northwestern, from South Chicago, Clarence Minnema, Rush, from Winnetka and Maurice Monroe, Northwestern, from Hartford, Wisconsin."

The first woman doctor to be commissioned in the army from Chicago is Dr. Julie Olentine, 27, a physician and surgeon on the staff of St. Anthony's Hospital, Chicago. She was graduated by Rush Medical College in 1940, interned at St. Anthony's and has been on the staff since 1941. Dr. Olentine has been commissioned a lieutenant and has gone to Drew Field, Tampa, Florida.

On June 10th Doctor W. A. Young of Springfield was presented his 50 year button and plaque. He was entitled to this honor several years ago, but took suddenly ill on the eve of

the ceremony and the event was postponed. The presentation was made by Andy Hall, Chairman of the Fifty Year Club of the Illinois State Medical Society.

Ludvig Hektoen, noted pathologist, received homage on his 80th birthday, July 2nd, from a group of colleagues and friends who gathered at the Cook County Hospital in his honor. The group, including some 150 doctors and research workers, had come for the dedication ceremonies at the new Hektoen Institute, a research laboratory in the building which formerly housed the McCormick Institute. Very few of his friends had known it was his birthday until late in the ceremony. Dr. Morris Fishbein presided with Dr. Karl Meyer, Superintendent of county institutions and Clayton F. Smith, President of the Board of Commissioners of Cook County, taking part in the ceremonies. Dr. Hektoen began his service with the County Hospital as an intern 56 years ago when the hospital had one microscope and 12 interns.

At the annual meeting of The Chicago Gynecological Society, held May 21, the following officers were elected:

President, George H. Gardner; President-Elect, William J. Dieckmann: Vice-President, Christian D. Hauch: Treasurer, Henry Buxbaum; Secretary, Eugene A. Edwards; Pathologist, Lester E. Frankenthal Jr.: Editor, Philip H. Smith.

At the annual meeting of the Illinois Psychiatric Society held on May 22, 1943 the following officers were elected for the year 1943-44:

Dr. Clarence A. Neymann, President; Dr. Hugh T. Carmichael, Vice-President; Dr. Frances Hannett, Secretary-Treasurer: Dr. Francis J. Gerty, Councilor; Dr. Vladimir Urse, Councilor.

The Annual Meeting with election of the officers of the Chicago Branch of the American Medical Women's Association was held July 14, 1943, and the following officers named:

President, Augusta Webster, 104 S. Michigan Ave.; President-Elect, Albertine L. Rea. 822 Cuyler Ave., Chicago: First Vice-President, Marguerite Oliver, 30 N. Michigan Ave.: Second Vice-President, Ione Beem, 30 N. Michigan Ave.; Secretary, Evalina W. Ehrmann, 122 S. Michigan Ave.; Treasurer, Clementine Frankowski, 1907 New York Ave., Whiting, Ind.: Bulletin: Sadie Bay Adair, 3866 Lake Park Ave., Lucille Snow, 1320 Ashland Ave., Wilmette, Ill., V. A. Latham, 1644 W. Morse Ave.

Southern Illinois doctors were guests of the Southern Illinois Penitentiary through the courtesy of Warden and Mrs. Becker, Menard, on June 17th. The program was given by the Staff of the Prison Hospital.

The doctors were taken on a tour of the Psychiatric Division Infirmary where Dr. Kuhlman, Chief of the Medical Department, demonstrated a Metrazol Convulsion and briefly discussed the merits and demerits of this type of therapy. Dr. Omer Hoffman of the Randolph County Unit gave an interesting discussion on Filiarisis in which he demonstrated a case of elephantiasis of the scrotum in a negro. The inmate was a native of Africa and had contracted the condition there.

The doctors were taken to the Prison Hospital. Since rapid preparations were being made here for the Army Induction Unit soon to be there, it was not possible to visit the entire hospital division. The rest of the program was given in the Administration Building where Dr. John Beare of Randolph Unit of Medical Men, presented a case of multiple fracture of the Femur, complicated by fractures of both ischium, pubic and sacral bones together with fracture and displacement of transverse process of the 5th lumbar vertebra. Complete X-Ray pictures showing the healing process and the original fracture (Dec. 9, 1942) were shown. At this time when the doctors saw the inmate he was doing his usual work, without a crutch, and showed only a slight defect in his gait.

The medical program ended with a paper given by Dr. Kuhlman on the central nervous system lues, dealing primarily with the incidence, prophylaxis and active Rx of the condition. Talks followed by Warden Becker, G. C. Otrich of Belleville, James S. Templeton Past President of the Illinois State Medical Society and Dr. L. May, Managing Officer of the Anna State Hospital.

Following a splendid dinner Warden Wallace of the Illinois Security Hospital spoke and the program was presented by Dr. Ralph C. Hamill, of Chicago, Assistant Alienist and Consulting Psychiatrist of the Veterans Bureau at Hines; the Consulting Neurologist who is also assistant director of the Behavior Clinic in Chicago, and Dr. Ralph May who demonstrated Electric Shock Treatment.

MARRIAGES

Samuel S. Allen, Robinson, Ill., to Miss Bernice Quick of Oblong, June 3.

DEATHS

Stoddard L. Anderson, De Kalb; Rush Medical College, 1896. Practiced medicine in De Kalb for 43 years. Died July 10, 1943 at the age of 68 years.

Stephen Victor Balderston, Evanston; University of Pennsylvania School of Medicine, 1895. Member of medical staff of Evanston Hospital. Was commissioner of health from 1907 to 1914. In World War 1 he entered the army as a captain and was discharged in 1919 as a lieutenant colonel. Died of a heart attack July 11, 1943 at the age of 75.

Charles Edwin Beecher, Knoxville; Northwestern University Medical School, 1905. Had practiced medicine in Knox County for many years. Died July 14, 1943 following an infection in his left hip, at the age of 63.

Roland A. Felt, Virginia; Barnes Medical College, St. Louis, Missouri, 1899. Had practiced medicine in Virginia for 12 years. Died July, 1943 at the age of 67.

Louis Morris Green, Maywood; University of Illinois College of Medicine, 1912. In 1918 and 1919, he served as medical officer in France and Belgium. After the war was examining physician for the Baltimore and Ohio Railroad. Died July 18, 1943 at the age of 63.

Edward W. Grosser, Chicago; Chicago Homeopathic Medical College, 1901 and Rush Medical College in 1902. Died July 24, 1943 at the age of 70.

Thomas A. Horine, Brighton, Washington University School of Medicine, 1879. Retired six years ago after nearly fifty years of practice in Macoupin County. Died July 16, 1943 at the age of 82.

John H. Krueger, Des Plaines; Loyola University Medical School, 1912. Had practiced medicine in Des Plaines for 20 years. Died suddenly July 3, 1943 at the age of 63.

Frank A. Lagorio, Chicago; Northwestern University Medical School, 1911. Chief physician for the Illinois Athletic Commission, member of the Chicago library board and head of Chicago Pasteur Institute. Died of a heart attack July 18, 1943 at the age of 56.

Harland W. Long, Mattoon, retired U. S. Army Major; Missouri Medical College, 1898, New York University College of Medicine, 1904. Served in the Spanish-American and World War. Was awarded the French Merit Award for his work with influenza while on foreign service. Died July 18, 1943 at the age of 73.

Raymond Henderson McPherron, Chicago; Northwestern University Medical School, 1921. Postgraduate work at Cook County Hospital. Was active staff member of Woodlawn Hospital for past 16 years. Past president of the Kiwanis Club. Was secretary and later president of the Jackson Park Branch of the Chicago Medical Society and later alternate and councilor to the Chicago Medical Society. Died suddenly of a heart attack May 23, 1943 at the age of 49.

Jessie Marsh, Chicago; Chicago College of Medicine and Surgery, 1914. Had practiced medicine in Chicago for 25 years. Died in St. Bernard's Hospital June 30, 1943 at the age of 59.

James Fitzwilliam Myers, Virginia; Tulane University of Louisiana School of Medicine, 1903. Had been in failing health for the past two years but died suddenly July 2, 1943 at the age of 72.

William A. Pike, Ottawa; Rush Medical College, 1896. Had served in the Spanish-American war with Company C, Third Illinois Infantry. Died June 25, 1943 at the age of 69.

Roy C. Pope, Niantic; Michigan College of Medicine and Surgery, Detroit, 1901. Had practiced in Niantic for over 40 years. Died suddenly when on a vacation in Boulder Dam, Wisconsin, July 8, 1943 at the age of 67.

Harvey Francis Rawlins, Champaign; University of Louisville School of Medicine, 1910. Was First Lt. in World War 1. Died following an illness of two weeks, July 14, 1943 at the age of 59.

Henry Alvin Shaffer, Charleston; Hahnemann Medical School, Chicago, 1903. Had practiced medicine in Charleston for 39 years. Died of a heart attack July 12, 1943 at the age of 71.

William Alexander Sim, Quincy, Ill.; Rush Medical College, Chicago, 1902; member of the American Psychiatric Association; served on the staffs of the Veterans Administration Facility in Sheridan, Wyo., and St. Cloud, Minn.; aged 65; died, April 21, of chronic leukemia.

Albert Lester Stebbings, Park Ridge; Northwestern University Medical School, 1896. Served three years in the medical corps in Honolulu, Hawaii during World War 1. Died July 3, 1943 at the age of 72.

Harvey Ainsworth Tyler, Chicago; Rush Medical College, 1889. From 1900 to 1925 was professor of gynecology and venereal diseases in Chicago Policlinc and Hospital. Medical director of the House of Good Shepherd. Died July 3, 1943 at the age of 53 years.

P. R. N.

The Jocular Jingles of C. G. F.

by

Charles G. Farnum M. D.

Peoria, Ill.

SEASONABLE SONNETS
AUGUST

This month is but an encore to the last,
The blazing sun sears deeper day by day,
Attempts to sleep at night are long since past,
With dust the roadside weeds are covered gray.
We take vacations that we long have planned
And rush up north in search of pep and zest;
We spend two hectic weeks in getting tanned
And then come back to work to get some rest.
Hay fever victims sadly cough and weep
And sneeze their protests through a swollen nose;
These lazy dog-days put us half asleep,
We ooze and bake and sizzle, nod and doze.
At winter's bitter cold we rave and curse
And find the heat of summer vastly worse.

NEVER TOO HOT

Each day is growing hotter,
I need a towel and blotter
To mop up sweat where chin and collar meet;
My nose is all ablister
Where blazing sunshine kissed her,
My face is one gigantic blood red beet.

My whole skin surface oozes,
Each muscle work refuses,
My feet protest at walking hot concrete;
Each room is like a furnace,
Each thing we touch will burn us,
To live in hades now would be a treat.

My throat is parched and drying,
I sizzle like things frying,
And all I crave is something cold to drink;
The poor old head is aching,
The spirit now is breaking,
My mind is utter blank; I cannot think.

My heart's but faintly beating,
Life's span is fast retreating,
This mortal coil's about to shuffle off;
I long ago quit trying,
Relief may come from dying —
I think I'll go and play a game of golf.

HUMAN FORMS

The doctor making calls at night
And coming home at dawn,
Beholds folks in a sweltering plight
Sprawled out on porch or lawn.

The most possess but scant attire,
And some much less than that,
A frowsy sight as they perspire,
Misshapen thin and fat.

Folks rave of human forms divine,
To them a wondrous sight.
If such exist then I opine
They don't sleep out at night.

One hopes the heat will not prolong
These sights at which we gaze
It takes a stomach good and strong
To breakfast on such days.

An Autumnal Wheeze.

I cannot tell the woes of me,
For dust rides on the breeze.
There's pollen in the nose of me.
I cough; I blow; I sneeze.

I know each day will bring to me
Its part of grief and pain.
The fiends of night will sing to me
And sear my tortured brain.

The skein of life's unraveling —
Accept Dame Fate or leave her —
So Northward I am traveling
Where no one has hay fever.

For full two months I'll stay away
And north of rag weeds roam;
A pariah who will hope and pray
For killing frosts at home.

Quarrelsome Quatrain.

When people sit on stool to eat,
They'd look much less inferior
If they would only hide their feet,
And likewise their posterior.

Professor Paresis says, "You may think you know a man's character when you have gone camping with him frequently or played golf with him regularly or lived next door to him for a long time. But I advise that you be not too sure of your judgment until you have had occasion to observe his behavior when he is given a position of authority."

Look to your health; and if you have it, praise God and value it next to a good conscience; for health is the second blessing that we mortals are capable of; a blessing that money cannot buy. Izaak Walton.



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Book Reviews

Essentials of Syphilology. By Rudolph H. Kampmeier, A.B., M.D., Associate Professor of Medicine, Vanderbilt University School of Medicine; In Charge of Syphilis Clinic and Visiting Physician to Vanderbilt University Hospital. With Chapters by Alvin E. Keller, M.D., and J. Cyril Peterson, M.D. 87 Illustrations. J. B. Lippincott Company, Philadelphia, 1943. Price $5.00.

This book was written to provide a brief text on syphilis for the practitioner of medicine, the health officer and undergraduate student to present the concept of syphilis as a systemic disease which can produce problems for the specialist in any field. It is generally well known that syphilis is one of the few diseases which can affect every organic structure and every tissue in the human body.

The necessity of taking careful histories and making thorough examinations in every case is emphasized. Frequently some cardinal manifestations of syphilis may be overlooked. Likewise the advisability of taking serologic tests in all physical examinations is properly stressed. No one doubts the advisability of making early diagnosis in syphilis to give maximum assurance of complete recovery and assure the prevention of the many teritiary manifestations too often seen even at this time.

The various treatment schemes recommended by various syphilographers and those adopted in many clinics are thoroughly discussed. The author has outlined in some detail his own suggestions along this line to give the best assurance of complete success in the management of these cases. A considerable amount of space is devoted to the therapeutic agents used in the treatment of syphilis, effects of the various chemical agents, and contraindications for certain of these drugs in individual types of the disease.

Congenital syphilis although seen less often than formerly, still remains a problem for the syphilographer, the pediatrician as well as the physician in general practice, and much information on this subject appears in the book.

The author states his objectives in an eight point platform which will be of interest to all readers and which should justifiably convince anyone interested in this important subject in medicine that this is a book which is not only well written, but which contains a vast amount of information helpful to all who read it.

Allergy, Anaphylaxis and Immunotherapy. Basic Principles and Practice. A treatise presenting the fundamental principles and practice governing the use of antisera, vaccines, toxoids, blood transfusions, blood substitutes and sulfonamides, in the prevention and treatment of infectious diseases and of the allergic phenomena resulting from their use. By Bret Ratner, M.D., Clinical Professor of Pediatrics, New York University College of Medicine; Visiting Pediatrician and Director of Pediatrics, Sea View Hospital; Associate Attending, Children's Medical Service, Bellevue Hospital; Consultant Pediatrician French Hospital. The Williams & Wilkins Company, Baltimore, 1943. Price $8.50.

This book is more than the usual work on

(Continued on page 30)

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BOOK REVIEWS (Continued)

allergy and its underlying principles, for the author has ingeniously linked the problems of immunotherapy with those of allergy which he believes supplies the answer to questions of great practical importance.

The first section of the book deals with the principles and practice of immunology, and the author thoroughly discusses the nature of serum, nature of homologous blood used in transfusions, then of blood substitutes, toxin and toxoids, antibodies and antisera. Each of these subjects is thoroughly discussed, including methods of preparation, etc.

Transfusion materials and modes of administration are likewise outlined in much detail as well as the use of immune serum and methods of its preparation. Some forty diseases in which immunotherapy may be used are discussed along with methods of preparing the material to be used.

The author deplores the indiscriminate use of sera and sulfonamides and describes the acquisition of allergic sensitization to these products. Much useful information relative to the various contagious diseases and their immunotherapeutic considerations is given in the first part of the book.

Book II is relative to allergy to immunotherapeutic agents with much information on the present day knowledge of hypersensitiveness. Serum sickness and the acquisition of serum allergy as well as the modes of its acquisition are thoroughly discussed. The subject of allergy in its entirety is presented. It is quite obvious that in order to be able to prepare such an extensive treatise on the many subjects contained in the volume, the author has devoted a tremendous amount of time in clinical and laboratory investigations to make it possible. A series of 86 pictures showing many laboratory experiments (especially on animals) will be of unusual interest to the student of allergy.

The average student desiring to obtain reasons why certain reactions develop, and who is anxious to take all possible precautions to prevent serum, transfusion and other hypersensitiveness accidents, (realizing that too many of these may prove fatal) will find much information of inestimable value in this unusual and well written treatise on the subject.

(Continued on page 32)



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BOOK REVIEWS (Continued)

OBSTETRICAL PRACTICE. By Alfred C. Beck, M.D., Professor of Obstetrics and Gynecology, Long Island College of Medicine; Obstetrician and Gynecologist-in-Chief, Long Island College Hospital, Brooklyn. More than 1000 illustrations. Third Edition. The Williams and Wilkins Company. 1942. Price $7.00.

This, the third edition of a highly popular book over a period of six years, has been revised markedly and certain parts entirely rewritten. The practice of obstetrics as well as most other branches of medicine, has undergone so many changes in recent years, and the practices of yesterday are changed today, so that we have all seen many new developments in this important field.

The book was written for both the student and the practitioner, and it contains the latest information on the subject. Although much attention is given to normal conditions, the abnormal likewise receive much consideration. The surgical procedures demanded occasionally in obstetrical practice are given a thorough outline. Although the student and the younger practitioner are usually not qualified to perform some of these operations, much attention is given to the evaluation of indications and to the proper type of procedure which should be used.

In the chapter on Cesarean section, the indications, contraindications and technique, and the proper time for the performance of the section, are carefully reviewed.

Among the more important developments in obstetrical practice today, are the use of the sulfonamides, roentgenologic examinations during pregnancy, their indications and proper time for the examinations, as well as what may reasonably be expected through the use of these procedures, and the present day live subject of erythroblastosis fetalis. The reader will find these subjects all within this large volume.

The illustrations are unusually good throughout the volume, and there are more than one thousand figures, many in color, which adds materially to the value of the book.

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(Continued on page 34)

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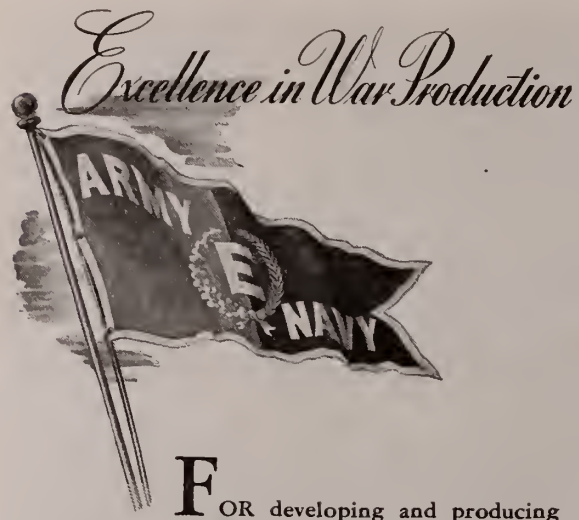
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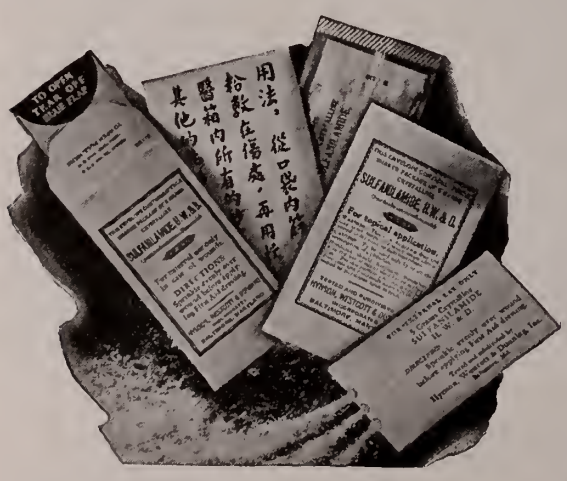
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BOOK REVIEWS (Continued)

time, we would most heartily recommend the book to physicians interested in getting the latest information on the subject of obstetrics.

NUTRITION AND DIET IN HEALTH AND DISEASE. By James S. McLester, M.D., Professor of Medicine, University of Alabama, Birmingham, Alabama. Fourth Edition, Thoroughly Revised. W. B. Saunders Company, Philadelphia and London. 1943. Price $8.00.

This is the fourth edition of an ever popular book, the previous editions having been brought out in 1927, 1931 and 1939. In this new edition the author has endeavored to revise dietary principles to keep them in line with the progress in medicine during a similar period of time. The chapter on vitamins, as would be expected, has been completely rewritten, and those more recently discovered vitamins essential to the human economy, have been added.

The book is divided into two parts, the first dealing with the subject of nutrition in health, and the second dealing with the consideration of nutrition in disease. The need for food and its utilization is given much thought in the early chapters of the book, and the material is presented in that characteristic manner which has made Dr. McLester an outstanding authority on the subject of nutrition. The role of the vitamins in health and disease is properly discussed in much detail.

In the second part of the book Dr. McLester has discussed in a most interesting manner, the various deficiency diseases, showing the various disorders due to vitamin deficiencies, then in excellent chronological order, the role of nutrition in diseases of the various systems, organs and structures of the body. A most interesting chapter will be found dealing with diseases of the blood and the nutritional factors in their proper management. Another interesting chapter is that relative to the feeding of the surgical patient which will be of special interest to surgeons.

In keeping with modern trends, a chapter on nutrition in industry is included which will be of much interest to more physicians today than ever before because of the ever-increasing number of men and women working in the many

(Continued on page 37)

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(Continued on page 42)

BOOK REVIEWS (Continued)

essential industrial plants throughout the country.

Much valuable information will be found in the appendix pertaining to such important subjects as special methods of feeding, the storing and processing of foods, methods of cooking, and a series of interesting tables giving a world of essential information which should be available for quick reference in the office of any physician.

This is indeed a fine volume which will be of great interest to most physicians, well written and so arranged that desired information can be found readily when needed.

SURGICAL CARE. A Handbook of Pre-and Post-operative Treatment. R. W. Raven, F.R.C.S., Major, R.A.M.C., Late Surgeon, Emergency Medical Service; Assistant Surgeon, Royal Cancer Hospital; Assistant Surgeon, Gordon Hospital; Surgeon to Out-Patients, French Hospital; Late Arris and Gale Lecturer and Erasmus Wilson Lecturer, Royal College of Surgeons. A William Wood Book. The Williams and Wilkins Company, Baltimore, 1942.

With the many improvements in surgical technique and the rapid advances in surgery as a whole, making more organs accessible to surgery with the element of safety well in hand, it is most fitting that more attention be paid at this time to the care of the surgical patient.

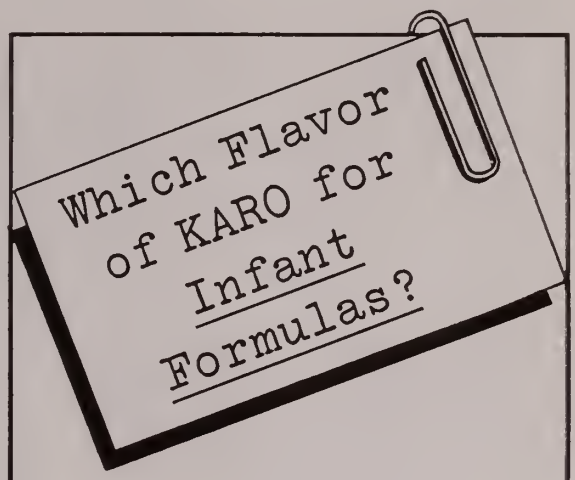
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BOOK REVIEWS (Continued)

which might arise. It is his duty not only to relieve the pathological condition present but to do everything possible to get a restoration of the most possible normal function of the part involved.

In this book which might well be considered as a pocket manual, the author properly discusses such subjects as infection, inflammation and repair, ulceration, gangrene, hemorrhage, shock, burns, tumors, and a number of specific infectious diseases, giving general and specific treatment for the various conditions. He then outlines in some detail the principles of surgical operations, including preparation, anesthetic of choice, and special forms of therapy to be used in individual types of cases.

As would be expected in a modern book of this type, the subject of blood transfusions and the use of blood substitutes is given proper consideration. Laboratory investigations and radiological examinations are considered in the last two chapters giving briefly the proper technique for these various procedures.

The book is well written and should be of interest to many members of the medical profession as a quick reference book which may easily be carried in the pocket and used during many odd moments.

Urology in General Practice: By Nelse F. Ockerblad, B.S., M.D., F.A.C.S., Professor of Clinical Urology, University of Kansas School of Medicine; Senior Attending Urologist to St. Luke's Hospital; Consulting Urologist to the Children's Mercy Hospital, Kansas City, Mo.; Diplomate of the American Board of Urology, and

Hjalmar E. Carlson, B.S., A.M., M.D., F.A.C.S., Instructor in Urology, University of Kansas School of Medicine; Attending Urologist to St. Luke's Hospital and Trinity Hospital, Kansas City, Mo.; Diplomate of the American Board of Urology. The Year Book Publishers, Inc. Chicago. 1943. Price $4.00.

The authors, both of whom have been teaching urology to students over a period of many years, have endeavored in this small volume to give information to the student and the general prac-

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BOOK REVIEWS (Continued)

titioner which will aid them in their work. It is not printed and prepared for the specialist, and it contains that type of material which they have given their students and which they have interpreted well for the profession as a whole.

Urologic diagnosis, based principally on a complete history and thorough examination of the patient and proper evaluation of the findings, is fittingly discussed in the first part of the book. Methods of taking the right kind of history, then the examinations which are deemed essential to get the diagnosis are well outlined. Careful and thorough examination of the urine is a first essential procedure, and the technique for the various tests is discussed in detail.

The subject of nephritis is reviewed appropriately in much detail, then the various types of infections, malformations, tumors and cysts, foreign bodies, etc., of the urinary tract are given proper consideration. The various types of trauma and their effects on structures considered in urologic practice are reviewed.

No modern treatise on urology would be complete today without a careful consideration of the sulfonamides in the various troubles found in this anatomical area and the authors have given their own ideas as to the value of the drugs, their indications, contraindications and method of administration as well as the drug of choice in the various disturbances.

The technique of the proper use of catheters, sounds and bougies has not been overlooked. The last chapter is devoted to the subject of gonorrhea, and its present day treatment which alone is well worth the cost of the book.

It is the opinion of the reviewer that many physicians in general practice will find much of interest in this small volume, and will find a place to put it where it can be used readily as a reference work on the many subjects which the authors have presented.

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Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

GASTRO-ENTEROLOGY. In Three Volumes. By Henry L. Bockus, M.D., Professor of Gastrouate School of Medicine. Volume I. The Esophagus and Stomach. Examination of the Patient, and Diagnosis and Treatment of Disorders of the Esophagus and Stomach, including Duodenal Ulcer. Fully Illustrated. Including Many in Colors. W. B. Saunders Company. Philadelphia and London. 1943.

MANUAL OF FRACTURES. Treatment by External Skeletal Fixation. By C. M. Shaar, M.D., F.A.C.S., Captain, Medical Corps, United States Navy, and Frank P. Kreuz, Jr., M.D., F.A.C.S., Lieutenant Commander, Medical Corps, United States Navy. Illustrated. W. B. Saunders Company. Philadelphia and London, 1943.

THE GENEALOGY OF GYNAECOLOGY. History of the Development of Gynaecology Throughout the Ages. 2000 B.C. to 1800 A.D. With Excerpts from the many authors who have contributed to the various phases of the subject. James V. Ricci, A.B., M.D., Associate Clinical Professor of Gynaecology and Obstetrics, New York Medical College; Director of Gynaecology of the City Hospital, New York; Associate Attending Gynaecologist and Obstetrician, Flower and Fifth Avenue Hospitals, New York; Consultant in Gynaecology and Obstetrics, Broad Street Hospital; Fellow of the New York Academy of Medicine. Department of Gynaecology and Obstetrics of the City Hospital, New York. The Blakiston Company, 1012 Walnut St., Philadelphia. Price $8.50.

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Hospitals which establish their own blood and plasma banks with the financial assistance of the Office of Civilian Defense are advised to build up their reserves of blood and plasma by expanding blood collection from relatives and friends of patients who are to receive transfusions. A public campaign for volunteer donors which may compete with the work of the Red Cross should be avoided if possible. If public solicitation is necessary, hospitals should appeal to the local chapters of the American Red Cross for assistance in recruiting hospital donors. Blood donor campaigns by agencies other than the Red Cross will tend to confuse the public and may interfere with the blood collection by the Red Cross for the armed forces.—*Office of Civilian Defense, Washington, D.C.*

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RECENT AMENDMENTS TO FOOD RATIONING MEET NEW NEEDS

Recent amendments to food rationing orders, involving osteopaths, condensed milk, fats, oils and hospitals, are summarized in *The Journal of the American Medical Association* for July 17 as follows:

The Office of Price Administration announced on July 2 that any medical practitioner authorized by the state in which he practices to prescribe all internal drugs is also authorized to certify that a person requires supplementary food rations for health reasons. Authority to make such certification was previously confined to doctors of medicine. OPA has now broadened the authority so that osteopaths in states which license osteopaths to prescribe all internal drugs may also prescribe supplementary food rations. Food rationing regulations provide that a person whose health requires more rationed food than his ration points permit him to buy may apply to his local board for necessary additional points. In some illnesses foods are prescribed in addition to drugs or medicines, or as a substitute for them. In some counties the work of ration boards in processing such applications has been much simplified through the voluntary help of the doctors themselves. By establishing panels to review all medical certifications and to advise the boards, responsibility for issuing extra rations for health reasons has been kept on a professional level.

The Office of Price Administration under date of June 1 placed evaporated and condensed milk on the list of rationed products. These types of milk are added to the group of rationed foods containing meats and fats, for which red ration stamps are needed, without any increase in the total number of points allowed for this group. One point is required for one 14½ ounce can or for two 6 ounce cans or for two 8 ounce cans. This means that the child may use 7 of his 16 points per week for his milk requirements in terms of evaporated milk, which allows slightly less than the equivalent of a quart of whole milk per day, and have 9 points remaining for his meat and fat requirements. An invalid or any other person whose health requires that he have more canned milk than he can obtain with the stamps in his War Ration Book II may apply at his local War Price and Rationing Board for additional points. The consumer must submit a written statement of a licensed physician showing why he must have more canned milk, the amount needed during the succeeding two months and why unrationed foods cannot be used instead. A supplemental allotment to acquire canned evaporated and condensed milk needed by a hospital to meet the dietary needs of its patients may be obtained on application to its local War Price and Rationing Board. It is understood that, if the present method of rationing does not make evaporated milk available in all areas for infants and children, some more effective method will be worked out.

(Continued on page 44)

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THERAPEUTIC EFFECT: — Elixir Bromaurate inhibits the coughing center, relieves the spasmodic attacks and cuts short the period of the illness.

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FOOD RATIONING (Continued)

The Office of Price Administration has issued an amendment to ration order number 16 (R. O. 16, amendment 25) which permits the use of rationed fats and oils for external therapeutic purposes. This includes the use of vegetable oils, such as cottonseed oil, for bathing newborn infants, for external application in skin diseases, for urethral injection or lubrication of urethral instruments, and for x-ray visualization. Such use of rationed fats and oils is defined as "industrial consumption" and persons using these products for such purposes are classified as "industrial consumers." An industrial consumer engaged in the care and treatment of the sick and needing ration fats and oils for this purpose may apply to his district Office of Price Administration for a certificate with which to acquire them. The procedure to be followed, briefly, is as follows: The application should be made on form R-1605 to the district office. If the applicant is a hospital the district office will pass on the application by using the same method of computing allowances as the local boards use in computing allotments for industrial users; otherwise the application will be forwarded to the Washington office for action. If the applicant requires more than he would receive by the method of computation described, he should also submit form R-315 stating the reasons for such request. An "industrial consumer" to whom a certificate is issued for "industrial consumption" of rationed fats and oils may use it only to acquire the foods for which application was made and may use those foods only for the purpose for which the application was granted.

For several months the Office of Price Administration and medical authorities have been studying the hospital problem with a view to developing a uniform procedure covering the granting of supplemental allotments for hospitals. Solution of the problem is believed near. In the meantime a provision in the regulations (section 11.6 of general ration order 5) should enable hospitals to obtain the necessary supplemental allotments so that patients need not suffer from dietary deficiency. This provision gives local boards authority to grant such allotments to meet the dietary requirements of patients living in and receiving care in hospitals whether or not such patients are on special diets. In determining the amount of the supplemental allotment of processed foods and the commodities covered by ration order 16, the local board will take into consideration the availability of fresh fruits and vegetables, unrationed substitutions such as poultry and fresh fish, and the physical facilities of hospitals to process and store such foods.

SNAKE VENOM AND INTELLIGENCE

"Record has not been found in the scientific medical literature concerning the treatment of insanity with snake venom," *The Journal of the American Medical Association* for May 29 says in response to a query.

A physician in Peru wrote *The Journal* as follows:

"The bushmaster snake with neurotoxic [poisonous to nerve tissue] venom is found in the jungles of eastern Peru. At a mission on the Perene River I saw a normal Indian who had recovered from the bite and who was said to be more intelligent than previously. This is the usual result. How does this compare with the use of snake venom in the treatment of insanity?"

Regarding snake venom and intelligence, *The Journal* says: "One snake dealer has been treated for five different bites and his wife for seven bites. Since they continue to handle snakes after being bitten five and seven times respectively, this seems to offer conclusive proof that this venom has not given them any excess of intelligence. There is no evidence that the snake handlers in carnivals appear to possess superior mentality, and horses which are used to make antiserum do not form an especially happy looking lot."

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The ILLINOIS Medical Journal

OF MEDICINE
OCT -1 1943

VOL. 84 NO. 3

September, 1943

In This Issue

Four Original Articles in a Panel Discussion on The Thyroid in Childhood

(See page 31 for Table of Contents)

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FOR THE MODERN PROPHYLAXIS AND TREATMENT OF THROMBOSIS

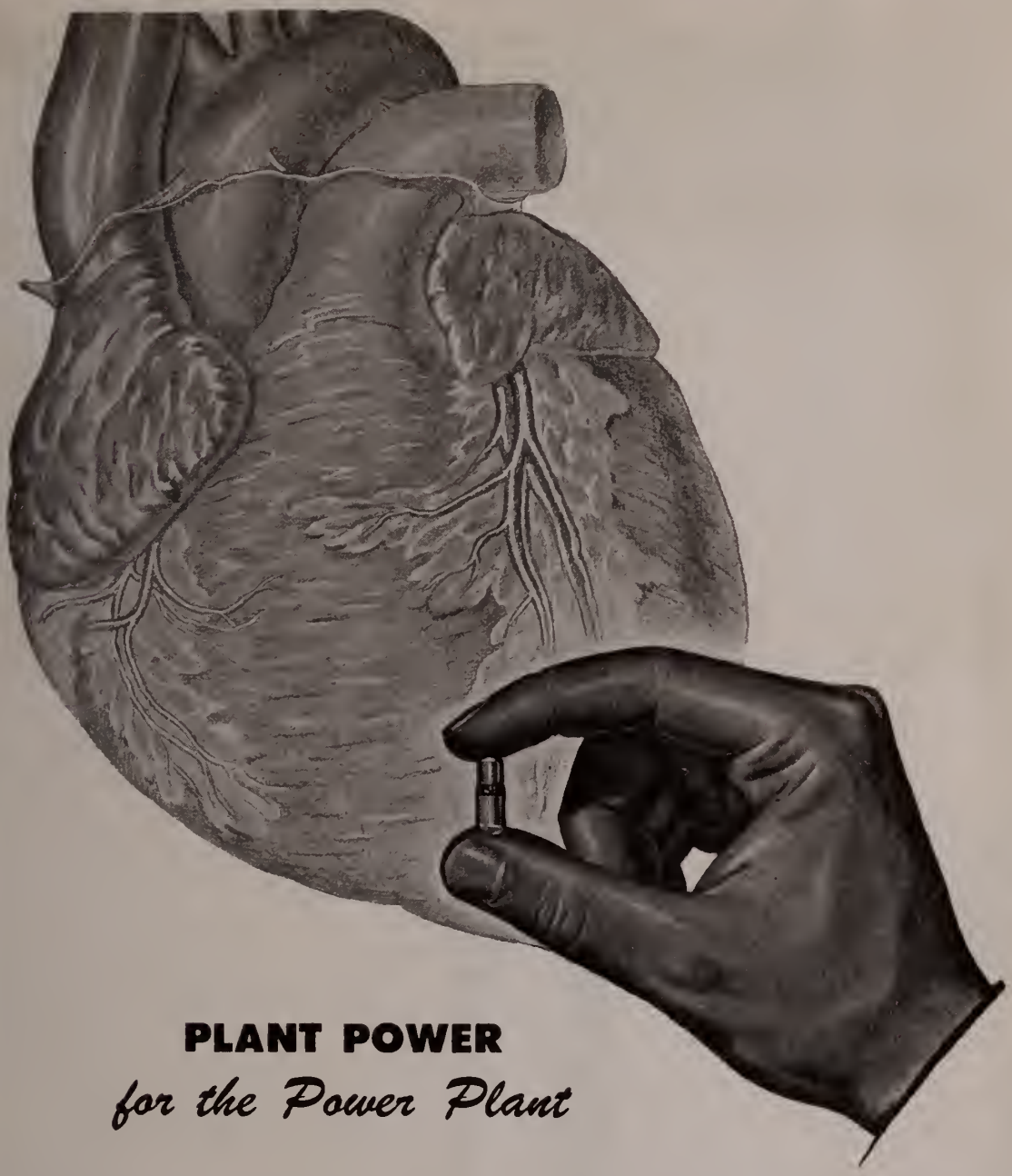
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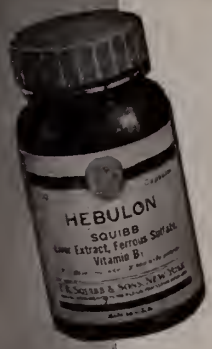
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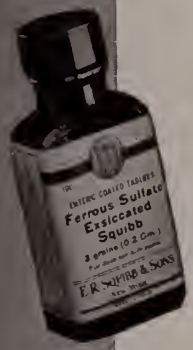
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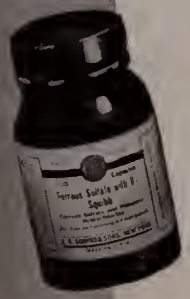
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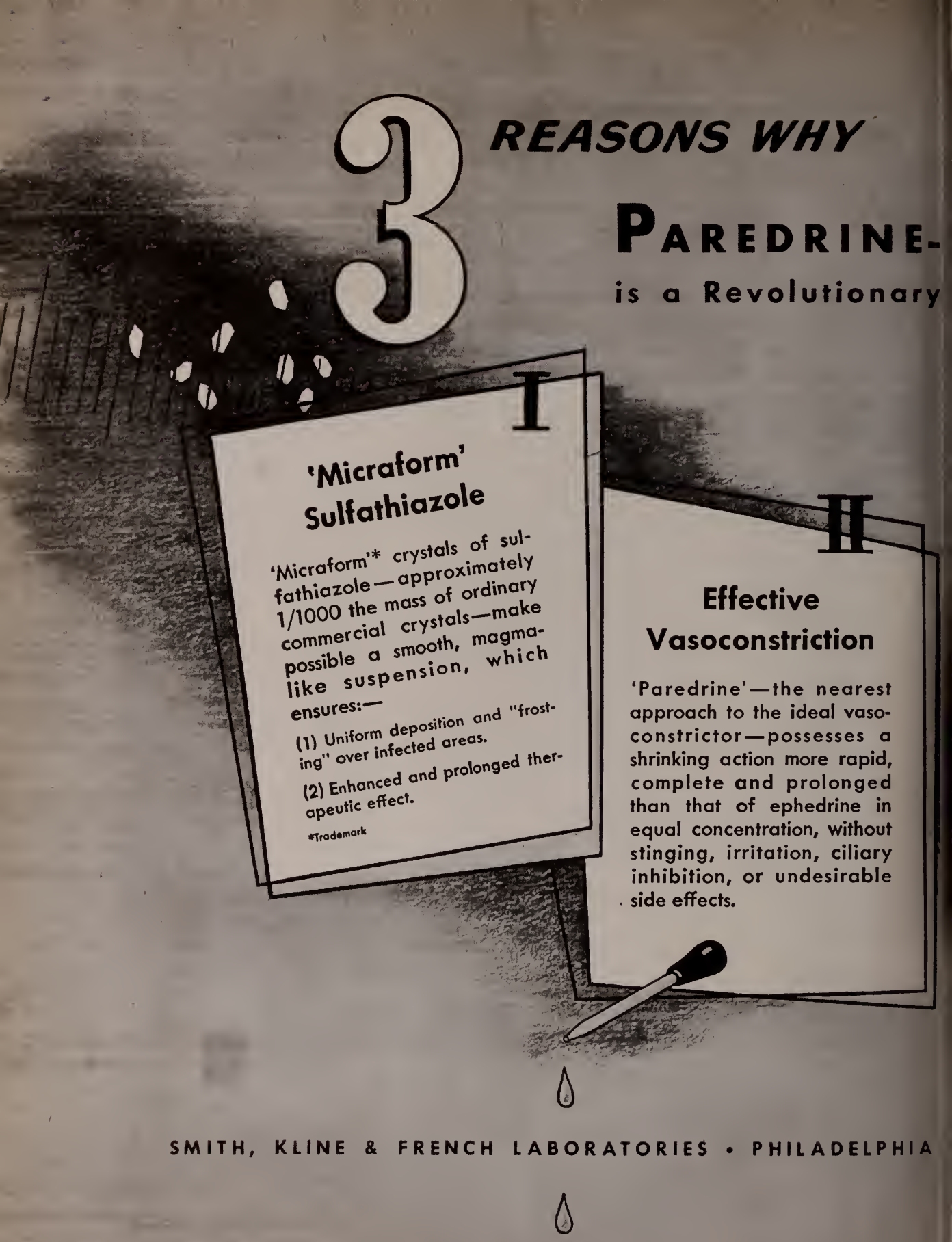
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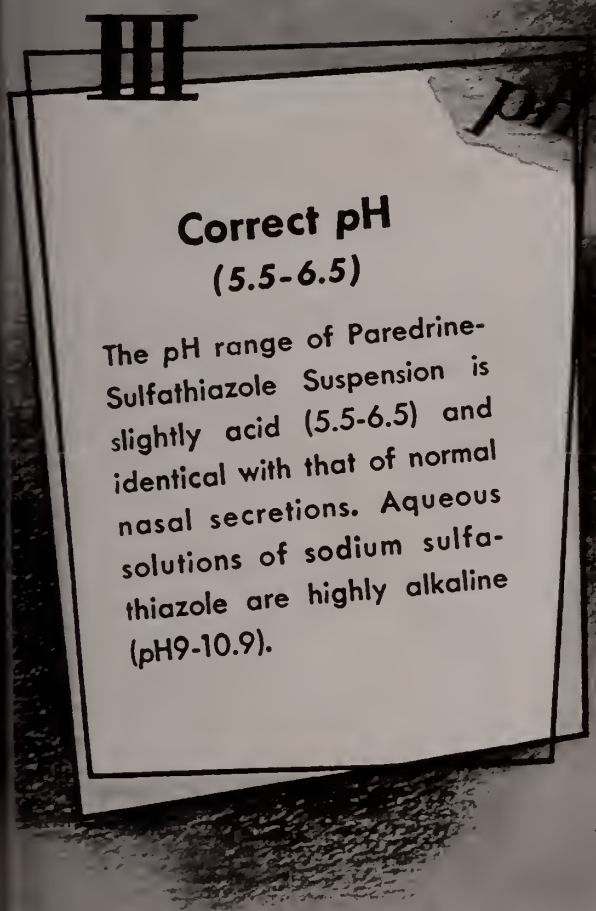
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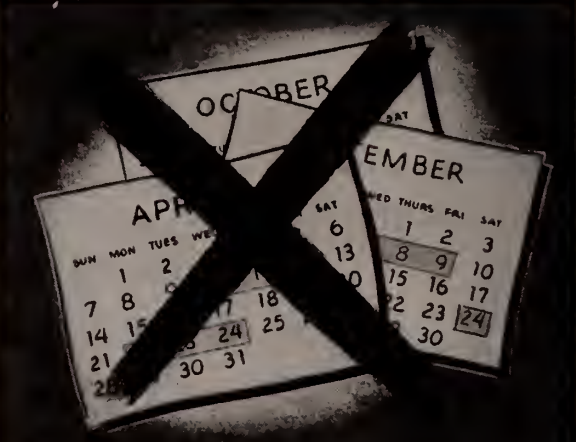
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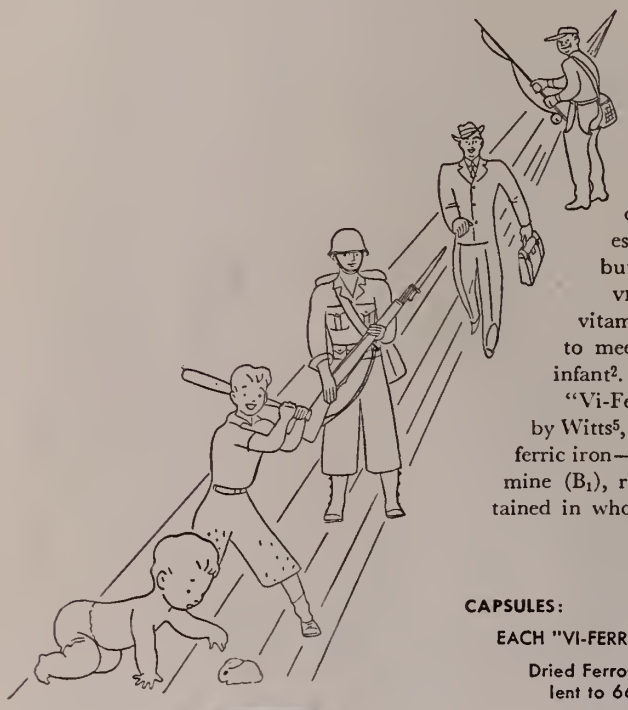
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REFERENCES:

[1]Federal Register: 6: 5921 (Nov. 22) 1941.

[2]Report on the Physiological Bases of Nutrition: League of Nations; 2.17 (1936).

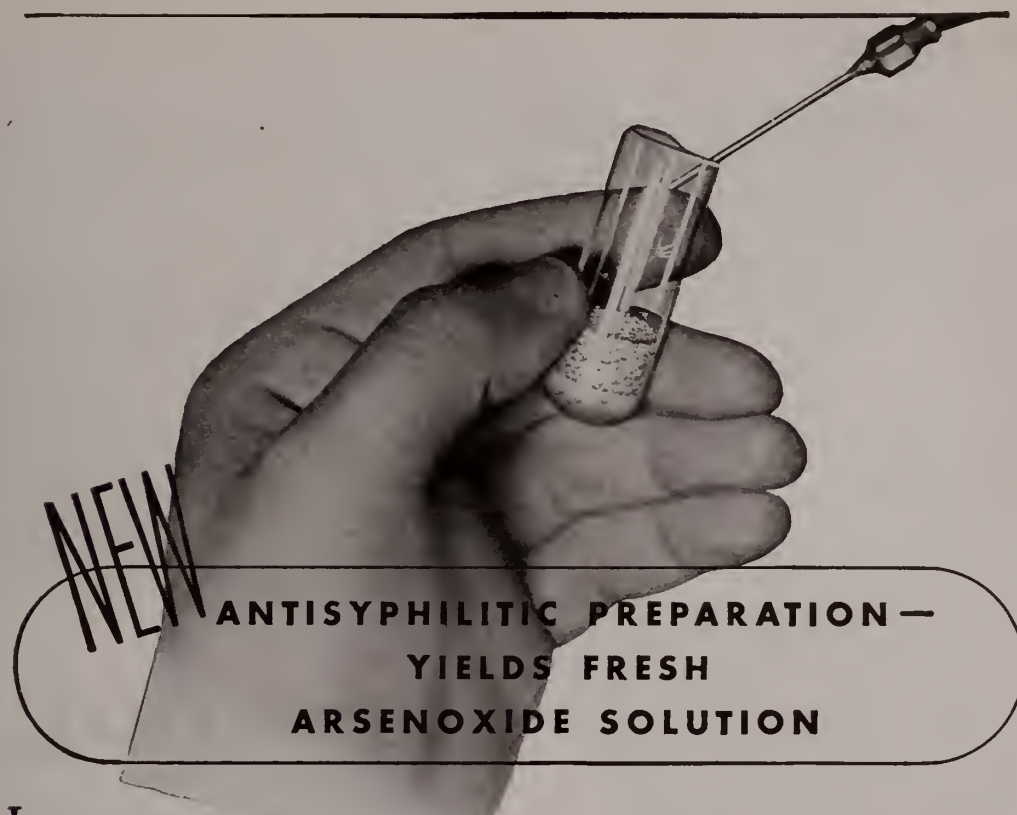
[3]STRAUSS, M. B.: J. Clin. Investigation 12: 345 (Mar.) 1933.

[4]Holt's Diseases of Infancy and Childhood. Appleton-Century Co., New York, 11th edition; p. 618.

[5]WITTS, L. J.: Proc. Roy. Soc. Med. 24: 543 (Jan. 13) 1931.

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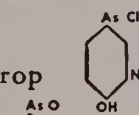
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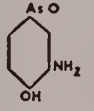


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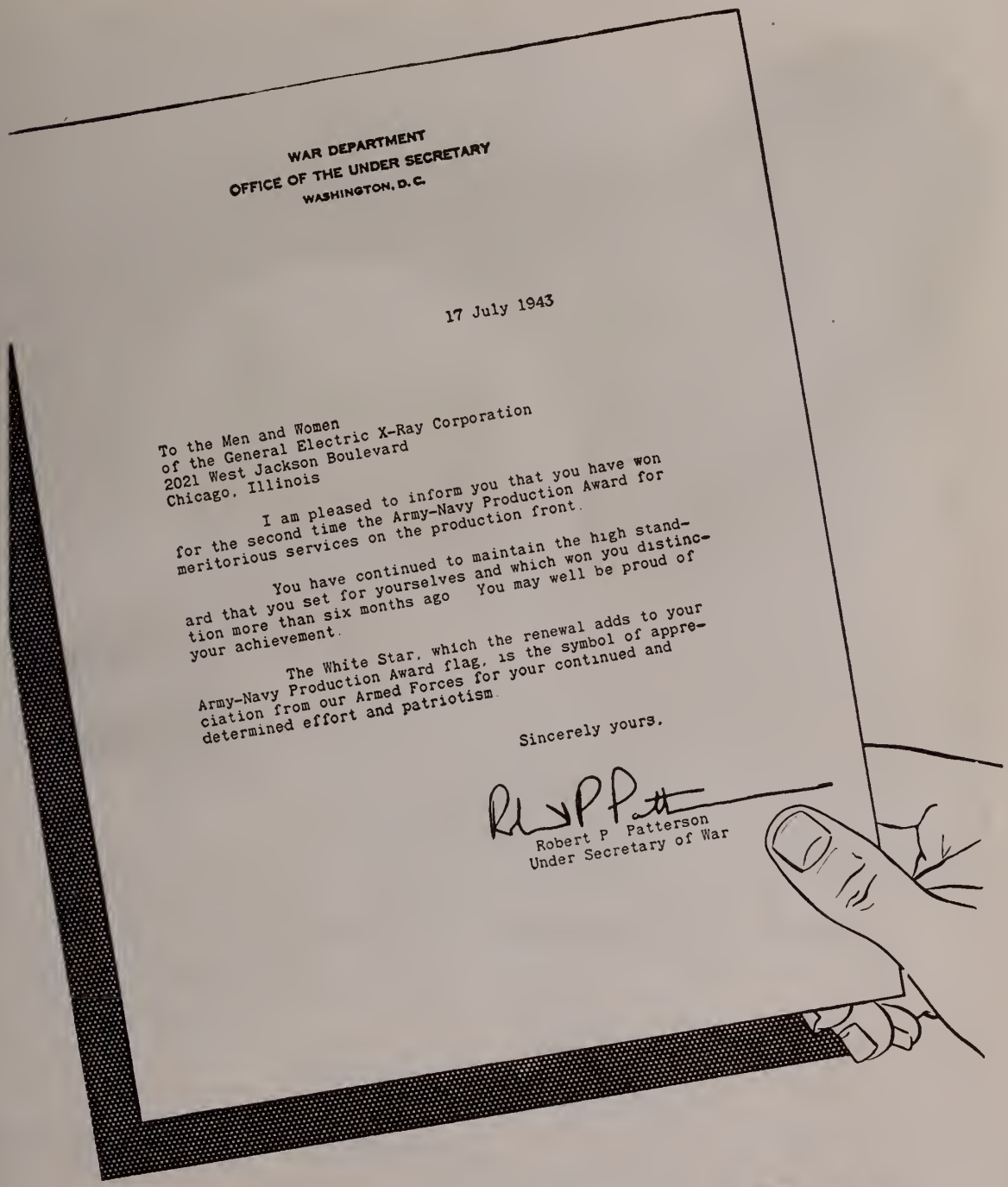
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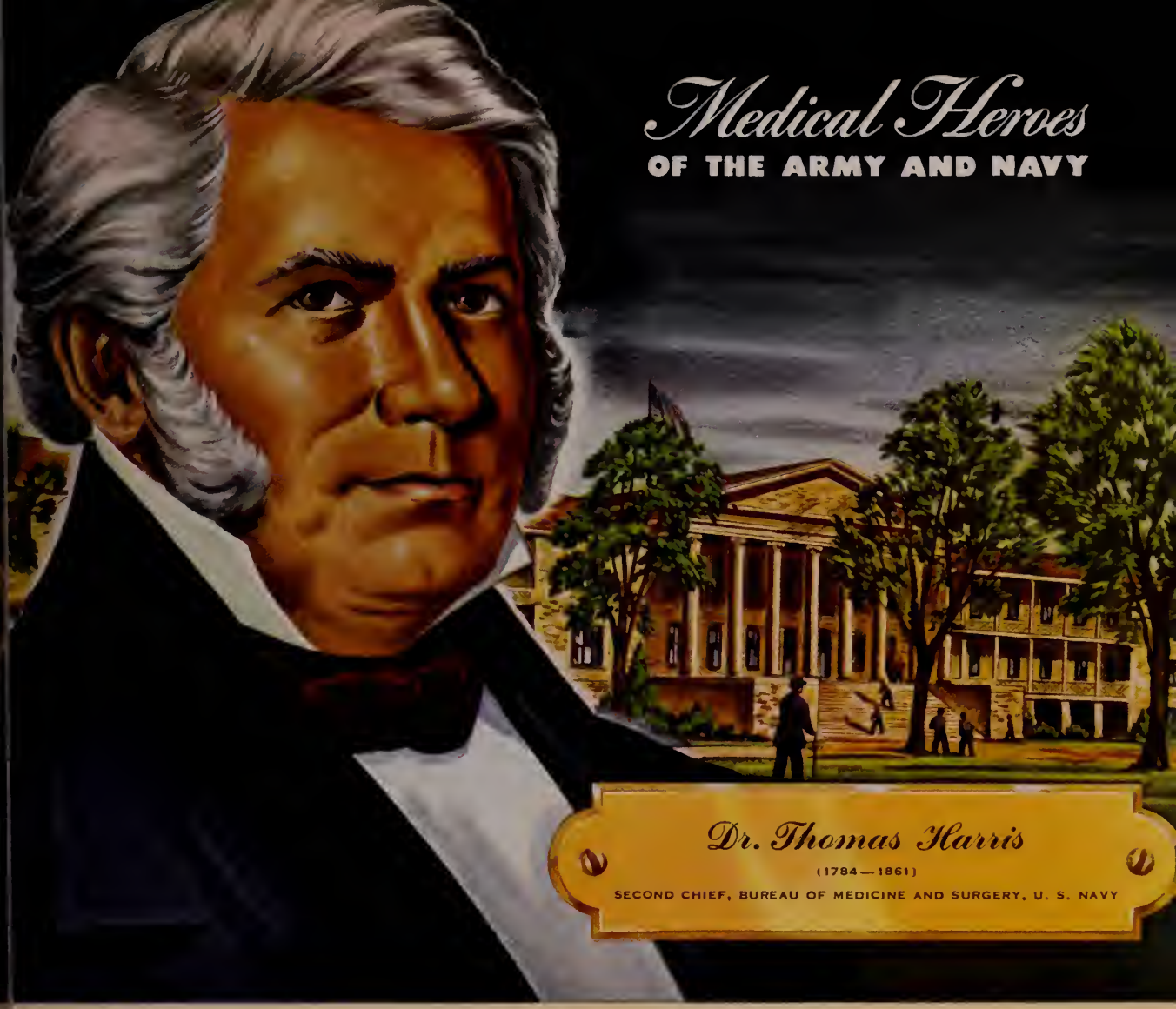
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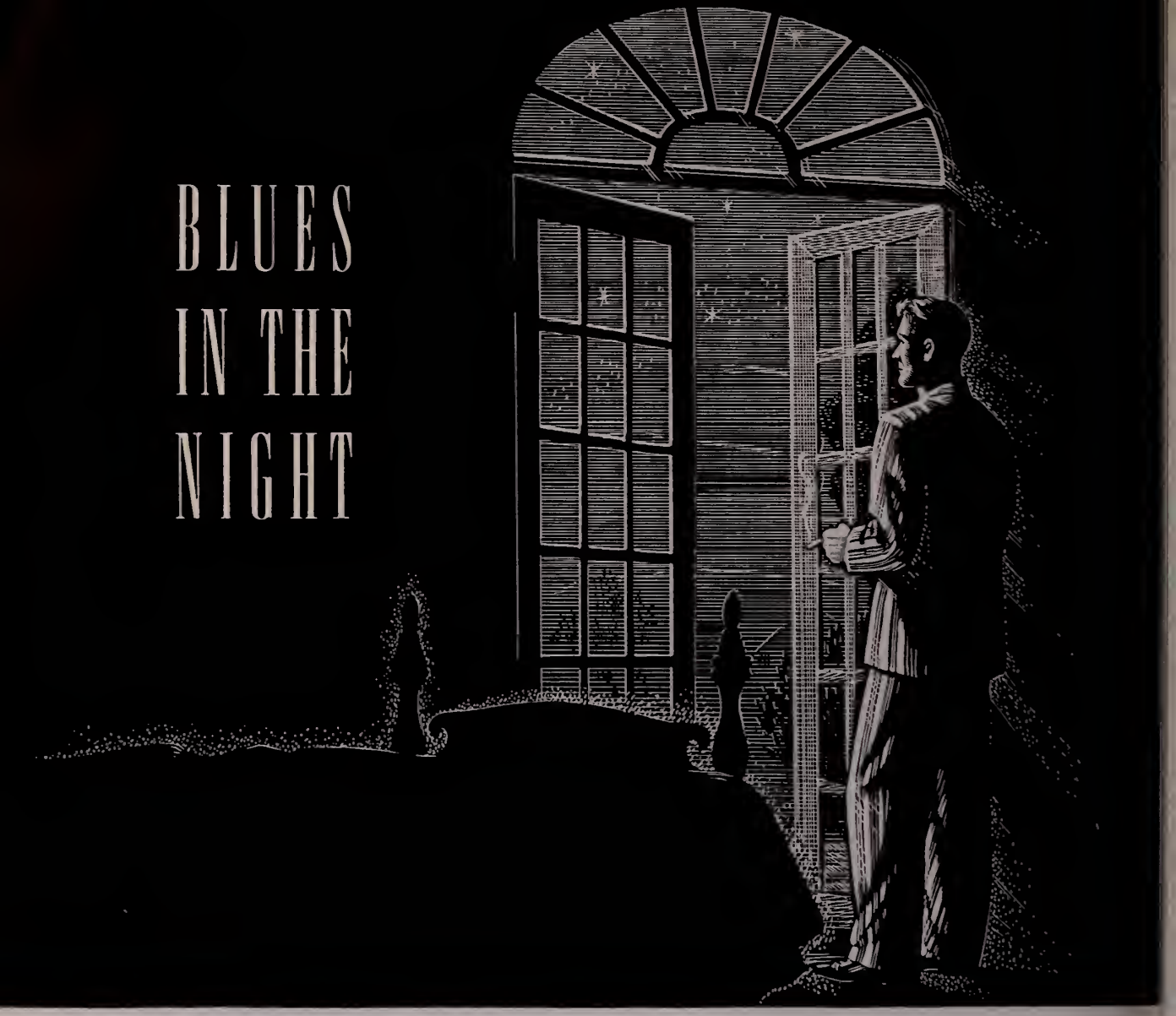
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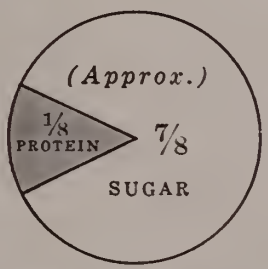
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1. Gallup, G.: American Institute of Public Opinion Survey, February, 1943

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September, 1943

VOL. 84, NO. 3

Official Journal of the Illinois State Medical Society

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Editorials

THE ARMED FORCES NEED MORE PHYSICIANS

The Directing Board of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians held a conference in Washington on July 31, with the War Participation Committee of the American Medical Association, and Mr. Paul V. McNutt, Chairman of the War Manpower Commission, to consider the continued requests of the Army and Navy for additional physicians for the Armed Forces. It was generally agreed that the request for six thousand physicians before the end of 1943 was necessary in the present war program, and it was unanimously agreed that every effort would be made to get the desired personnel at the earliest possible moment.

This information was immediately transmitted through the Procurement and Assignment Service to the state chairmen and their committees, urging them to render all possible assistance in carrying out the present program. State chairmen and their respective committees were urged to make a re-appraisal in each county in their states, to make additional physicans of the desired age available and report same promptly to the Directing Board, and the proper War and Navy Department Officer Procurement Services.

It was stated that many of the medical schools and hospitals throughout the country can release additional instructors and staff members without seriously impairing their work. The need, as shown to those attending the conference is real, and every effort will be made to get the required medical personnel at an early date. It was stated that if a sufficient number of physicians under the age of 45 could not be cleared through the Procurement and Assignment Service, proper legislation would be enacted so that the needs can be met through the Selective Service System, but it is the opinion of the Procurement and Assignment Service personnel, that this will not be necessary.

Many of the younger physicians who have been previously rejected for service on account of minor ailments, are to be re-examined and most likely many will be commissioned at an early date.

Physicians in various communities will no doubt be asked to enlarge their territory and care for the practice of physicians in smaller towns nearby, who may be commissioned in the medical corps.

There is another trust placed in the hands of the medical profession itself, and the need

should be completely supplied voluntarily, without special legislation being enacted. Medical officers in the Armed Forces have played an important part in the success of recent months, and with the probability of an early invasion of the European continent, a sufficient number of physicians must be available to care for all possible needs of those officers and men carrying out these plans.

County committees on Procurement and Assignment Service for Physicians, are urged to notify the State Chairman at the earliest possible moment, of physicians under the age of 45 who may be made available in their respective counties.

WAR TIME MEDICINE

It is quite obvious to all that with approximately 50% of the physically fit physicians of the United States with the Armed Forces, those who remain at home to carry on in the giving of medical care to the civilian population, caring for the needs of industrial and ordnance plants, and the other essential duties of their profession, must work longer hours and perhaps not give the luxury type medical care enjoyed by many people in recent years.

There are many elderly physicians throughout the country who were either on part-time duty or had retired from practice before the outbreak of war, but who are now working full time in the effort to do their bit as a patriotic deed, and do many things in medicine formerly left to the younger men. Then there are many who were formerly classed as specialists in one of the many branches of medicine, but who at the present time have joined the large group of general practitioners in caring for many ailments they had not previously encountered in recent years.

A letter is published in this issue of the Illinois Medical Journal in the correspondence section, as submitted by a man whose name is well-known throughout the country for his accomplishments in medicine which we hope will be read by every physician in Illinois as it deals with a highly important subject. It is generally known that the physicians today are carrying a heavy load, are working longer hours, and perhaps see more paients during the month than

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had previously been the case, yet but few of these men are complaining and are willing to do their part.

There are many things the laity can do to help the busy doctor, yet when any emergency arises, no physician who is able to attend the case will refuse to do what is asked of him. A few isolated reports have been received recently in the effort to show that the medical profession will not accept many emergency calls, and in most instances when the proper investigation is made, it will be found that the family failed to call the physician early because they thought he would not make the necessary call, and no effort was made at the time to verify their opinion.

Much time of the physician is wasted each day when people call him from other duties to tell their long list of troubles over the phone, even though they expect him to make a home visit, or see them in the office, perhaps the same day. Many times patients or their families insist on talking to the doctor when the office assistant could easily take the message. For many years the Illinois State Medical Society has been urging business and professional men to have the periodic check-up with excellent response on the part of many from these groups. It is possible in most instances for those having had this service under normal times, to have it in war time, provided they make an appointment for the check-up at a time to suit the physician's convenience.

The contribution of those physicians remaining at home in most instances, is highly essential, and it is one of the responsibilities of the Procurement and Assignment Service to see that an adequate number of physicians remains at home for care of essential workers and civilians. At the outbreak of war, surveys showed that physicians resided at 862 places in Illinois, and although this may not be true at the moment, efforts have been made to protect the civilian groups in each community even though many younger physicians have been taken from small towns and it is impossible to get a replacement for the duration. Efforts have been made, however, to see that the health interests of these people can be cared for, through the efforts of physicians in nearby places who can give war time adequate care, although perhaps not the luxury type previously available everywhere.

LAWMAKERS CONFER WITH THE HOME FOLKS

An unusually interesting conference was held in Minneapolis on August 16 and 17, when approximately 20 members of the U. S. Senate and House of Representatives from five Northwestern States, who are on vacation, met with the home folks to get their respective opinions of what has been going on at the Nation's capitol. Many representatives of agriculture, dairy interests, retailers, wholesalers, dealers in many other types of commodities, along with members of the medical, dental, pharmaceutical and hospital groups were present to give first hand information as to their respective opinions on enacted and proposed legislation and the effects these laws have on their business.

All day long the legislativemen listened patiently to the reports from the many groups, the reports being presented in writing, and copies were given to the Solons for further study before going back to Washington.

On the evening of the 16th, medicine was well represented by many hundreds of members of the medical, dental and pharmaceutical professions, with each group having a spokeman to present their story.

A. W. Adson of Rochester, was the spokesman for the medical group and in a highly commendable manner told the lawmakers that medicine desires only to continue to practice medicine in a democratic country in a democratic way; the medical profession is not asking for special privileges, but hopes they may continue to practice individually and without political dictation or supervision. Dr. Adson referred to the well-known fact that medical care given in this country is superior to that given in any other country in the world, and that in many of the other countries medicine has been under political supervision for varying periods of years.

Reference was made to the unusual developments coming from intensive research in this country in recent years, and the effect this has had on the health of the United States Army. Our medical educational institutions are turning out each year better prepared young physicians to carry on the work. With nearly 50,000 physicians in service with the armed forces of the United States, their work has received much commendation from the high officers of the troops which have engaged in the several suc-

cessful campaigns. To verify this statement one needs only to read the recent reports given by the Surgeon General of the U. S. Army who was in North Africa at the time the axis troops were driven from that continent. Surgeon General Norman Kirk told of the many compliments paid to the work of the medical officers of the army, and the statement made by General Eisenhower that without this highly trained medical personnel, the successful conclusion of the campaign would not have been possible.

With nearly one-half of the able-bodied physicians of the country now in service, having left their homes, families and practice as a patriotic duty, would it be fair to this large group to have the Wagner-Murray Senate Bill 1161 enacted during their absence and without giving them the opportunity of registering a protest at such a revolutionary change in the method of providing medical care for the American people under Federal supervision?

Dr. Adson stated that medical problems at present time can be well considered under three categories. Those relative to providing medical care for those perfectly able and willing to pay for the services received; those in the lower income groups yet being able to pay for their care, and who are receiving adequate care. The third, that group of people unable to pay for their medical care, many of whom are receiving medical care under one of the fund-matching plans, and those whose care is, and always has been supplied as the duty of overseers of the poor, or some other similar agency.

With so many physicians with the armed forces, war-time medical care must naturally be somewhat different from the former luxury services which many people have demanded and received.

Dr. Adson referred to the well-known fact that medical problems which come before Congress are referred to a number of different committees, when in his opinion there should be a committee on health in both Houses to which these many problems could well be referred for study and subsequent recommendations. He likewise called attention to the fact that the medical profession for many years has strongly urged that there be established in Washington a Bureau of Health, with a physician as Secretary, and he should be a member of the President's Cabinet.

In their consideration of health problems, the legislators should consider first of all, economy, maintenance of free enterprise, and the sick should by all means have free choice of physicians to care for them.

Physicians throughout the country should read the analysis of Senate Bill 1161, the Wagner-Murray bill, as published in the June 26, 1943 Journal of the American Medical Association. Another excellent analysis of the bill is contained in the recent pamphlet issued by the National Physicians Committee, entitled "Abolishing Private Medical Practice, or $3,048,000,000.00 of Political Medicine Yearly in The United States." These analyses show that under this bill it is proposed that the authority of supervising medical practice be placed in the hands of the Surgeon General of the United States Public Health Service. He would have the power and authority to:[1]

1. Hire doctors and establish rates of pay possibly for all doctors.
2. Establish fee schedules for services.
3. Establish qualifications for specialists.
4. Determine the number of individuals for whom any physician may provide service.
5. Determine arbitrarily what hospitals or clinics may provide services for patients.

A complete analysis of the Wagner-Murray Senate Bill 1161 would require so much space in the Journal that we would be compelled to leave out other essential material, but we respectfully urge every physician to read the analyses as published in the June 26, '43 Journal of the A.M.A., and also the brochure referred to above, as published by the National Physicians' Committee, and sent to the physicians of the entire country. After reading these articles and analyses, physicians should confer with their Senators and Representatives, tell the effects, as they see them, such a revolutionary change in medical care would have not only on the services rendered, but what is more important, the effects it might have on the sick who have always had the right to select their own physician, and he being permitted to use his own judgment entirely, on the type of service to be rendered. At this time with increasing costs of operating our Government, the continual search for new taxes, the annual deficit, and the constant desire of many people to see the budget once more balanced

1. N.P.C. — A factual analysis of the Medical and Hospitalization provisions of the Wagner-Murray Senate bill 1161.

after the present conflict is ended, does it seem desirable to add more financial burdens on the American people by the adoption of this type of experiment?

The Minnesota Conferences was probably the first of its kind to be scheduled anywhere in the country, and seems perfectly natural that legislators should endeavor whenever possible, to get the viewpoints of their constituents, and seek their guidance especially when legislation not directly connected with the war effort is to be considered. If this is done rather generally throughout the country, it seems quite probable that there will be less confusion and dissatisfaction later on.

THE MURRAY-WAGNER-DINGELL BILLS

Reference was made in the preceding editorial to the analyses of these companion bills introduced in the Senate by Senators Wagner and Murray, and in the House of Representatives by Congressman Dingell.

Since the editorial was submitted for publication in this issue of the Illinois Medical Journal, the Committee on Medical Economics submitted its data for the September Journal and the material is that referred to as the Analysis by the National Physician's Committee for the Extension of Medical Service, with comments by the Department Editor. We would therefore urge that every reader of the Illinois Medical Journal carefully read this interesting article, then write the Senators and Congressmen at Large as well as to the Congressmen representing the individual districts.

A special bulletin will be received by Illinois Physicians from the Legislative Committee on the same subject and with it a list of Congressmen from the various districts of the state, the Congressmen at Large and the United States Senators from Illinois.

This is the proper time to get in touch with these officials and submit your comments on the highly important subject.

Beautiful young people are works of nature, but beautiful old people are works of art. — *Ghost Town News.*

THE TREATMENT OF ANEMIA

Today the adequate treatment of the anemic patient depends to a large degree upon the proper classification of the hemopoietic defect. A thorough understanding of these defects and simple measures by which they can be recognized is a necessity. At present, the state of our knowledge of the underlying physiology of the hemopoietic system is such that if utilized, the large majority of the cases with anemia can be successfully handled by the general practitioner and only in the exceptional case will the additional experience of the hematologist be necessary.

For example, the erythrocyte maturing factor is formed by the interaction of the intrinsic factor in the stomach on the extrinsic factor contained in the protein of the diet. After formation it is absorbed in the upper part of the gastro-intestinal tract, transported to the liver, and there stored until needed. Deficiency of intrinsic factor results in the true Addisonian pernicious anemia. Deficiencies of extrinsic factor are occasionally encountered in individuals on very prolonged low-protein diets. Disturbances in absorption are seen in such conditions as sprue and other chronic diarrheas. Deficiencies of erythrocyte maturing factor result in a macrocytic hyperchromic anemia. The treatment of these types of anemia should be directed in two ways. By a careful survey of the clinical factors present, the exact disturbance in the chain of E. M. F. formation can be found and therapy instituted. If, for instance, extrinsic factor is missing this can be applied as protein. If a chronic diarrhea is present therapy should be directed here. In all cases in the beginning, however, E. M. F. should be supplied as liver extract. The parenteral route is much to be preferred and as much liver extract should be given as often as is necessary to produce and maintain red-cell levels at 4.5 to 5 million. Twenty units or more per day may be necessary in an occasional case.— *Marion F. Beard, M. D., Kentucky Medical Journal.*

When the tyrant has disposed of foreign enemies by conquest or treaty, and there is nothing to fear from them, then he is always stirring up some war or other, in order that the people may require a leader.—*Plato.*

Correspondence

A RUMOR RESPONSIBLE FOR TRAGEDIES

To The Editor:

The idea now generally current that doctors in civilian life are so busy and overworked that they should not be called except in grave sickness or serious emergency is doing the public definite harm. For many years the Illinois State Medical Society has striven to educate the public to call the doctor early so that if the condition was serious treatment could be started at once and if not serious, measures could be instituted to prevent its becoming so. Since Pearl Harbor we have allowed some one to completely neutralize that idea by telling the public not to call the doctor. He is too busy; he is overworked; he isn't to be bothered with trifles; his strength must be conserved; and so forth and so on. This movement did not originate with the profession — not in Illinois at least.

In one county from which an unusually large number of doctors had gone into the armed forces a survey was recently conducted by the U. S. Public Health Service and the officers of our state society. This showed that in spite of the fact that a large percentage of the doctors had gone into the armed forces, those remaining in civilian practice were rendering adequate care — when given the opportunity. It was found that one patient barely survived a ruptured appendix because the family had delayed calling the doctor for several days. They had refrained from calling him because of this propaganda that doctors should not be asked to make calls except in dire emergencies and the family had not recognized the grave nature of the illness until it was almost too late. A case came under my observation in Chicago where the family waited several days before calling the doctor and the patient died of an intestinal obstruction. It is the rumor and not the shortage of doctors that is responsible for such tragedies.

The patient is seldom able to properly evaluate his own symptoms and safely decide when he should or should not call a doctor; but even over the telephone the physician can often decide whether a case sounds so serious that it should be seen at once or can safely wait until tomorrow. Many times he can suggest measures that will make the patient more comfortable and the family easier mentally until the patient can be seen.

Of course the doctors are hard worked and the mortality, particularly among older physicians, who are trying to work as they did in earlier years, will undoubtedly be very high. But our confreres in New Guinea and on the other war fronts are also hard worked and will suffer many casualties. Our contribution, while less spectacular, may be almost as arduous and quite as important.

This rumor will not stop the psychoneurotic from making telephone calls or office visits. It will discourage only people who are really in need of a physicians services. Thus the rumor, no matter how well meaning, does no good and much harm and should be discouraged in every possible way.

MEDICINE AND THE WAR

A special feature of the Ninth Annual Meeting of the Mississippi Valley Medical Society to be held in Quincy, Ill., Sept. 29 and 30, will be an All-Chicago Symposium on "Medicine and

the War," on Wednesday evening Sept. 29. The following is the program arranged:

Presiding Officer, Lindon Seed, M.S., M.D., Chicago, Major, M.C., U.S. Army; Chief of Surgical Staff, Camp Ellis, Ill. Associate Prof. of Surgery, University of Illinois.

7:30 P. M. Warren H. Cole, B.S., M.D., F.A.C.S., Chicago, Prof. and Head of Dept. of Surgery, University of Illinois, "Some Important Differences Between War and Civilian Surgery."

8:00 P. M. Carl M. Peterson, M.D., Chicago, Secretary, Council on Industrial Health, American Medical Ass'n. "War Casualties and Industrial Rehabilitation."

8:30 P. M. H. L. Dolardl, M.D., F.A.C.P., Great Lakes, Ill. Captain, M.C., U. S. Navy, Senior Medical Officer, Ninth Naval District, "The Tasks of the Medical Department of the U. S. Navy in Global War." (Sound Movies)

9:30 P. M. Charles H. Phifer, M.D., F.A.C.S., Chicago, Chairman, 6th Service Command, Procurement and Assignment Service. "The Accomplishments and Difficulties Encountered by Procurement and Assignment Service."

Another interesting medical war-topic paper will be given on Thursday, Sept. 30 by Paul W. Greeley, A.B., M.D., F.A.C.S., Lieut.-Commander M.C., U.S. Navy Reserve, Chief of Plastic Surgery, U. S. Naval Hospital, Oakland, Calif., and Ass't. Prof. of Surgery and Chief, Division of Plastic and Reconstructive Surgery, University of Illinois. Dr. Greeley's paper is entitled "Some Personal Experiences in Current Military Plastic Surgery," and will be illustrated with movies.

SPECIAL NOTICE TO MEDICAL PROFESSION

At St. Elizabeth's Hospital, the Federal institution for the treatment of mental disorders, Washingon, D. C., fine opportunities for psychiatric residencies and rotating internships are open to recent graduates of medical schools; these residencies and internships rank among the best in the United States. The Institution has 7,000 patients including members of our armed forces who are casualties of the present war. In order that these men as well as civilian patients receive adequate care and treatment, it is necessary to recruit a number of Junior Medical Officers.

The rotating internship consists of 1 year of rotating service including medicine, surgery, psychiatry, laboratory, pediatrics (affiliation), and obstetrics (affiliation). Applicants must be fourth-year students in a Class A medical school or they must have successfully completed their fourth year of study in a Class A medical school subsequent to December 31, 1935. The duties of Junior Medical Officer (Rotating Internship) are those of an interne assigned to medical surgical, and laboratory services, and out-patient clinics.

A postgraduate internship of 1 year in psychiatry is offered to graduates of medicine who have already served an accredited rotating internship. Applicants must have successfully completed their fourth year of study in a Class A medical school subsequent to December 31, 1932, and they must have the degree of either B.M., or M.D. In addition, they must have successfully completed an accredited rotating internship of at least one year, except that applications will be accepted from persons now serving such internship. The duties of Junior Medical Officer (Psychiatric Resident) are those of a resident in the diagnosis and treatment of mental patients.

It is possible that women may be utilized in these positions. Appointments to the above positions will be made at various times during the year as vacancies arise. The positions pay $2,000 a year (plus $433 overtime pay). There are no age limits for these positions. No written test is required. Persons now using their highest skills in war work should not apply. Appointments in Federal positions are made in accordance with War Manpower Commission policies and employment stabilization plans.

The Commission would appreciate your bringing this information to the attention of qualified persons who you feel may be interested. An official announcement, amendment, and application forms are enclosed. Additional copies may be obtained at first- or second-class post offices, Civil Service Regional Offices, and the Commission.

By direction of the Commission:
Very respectfully,
Wm. C. Hull
Executive Assistant

Long ago was Gracchus slain,
Brutus perished long ago;
But the living roots remain,
Whence the shoots of freedom grow.

Medical Economics

Edited by R. K. Packard, M.D., Chairman of the Committee on Medical Economics of the Illinois State Medical Society, 826 East 61st Street, Chicago, Illinois.

The long looked for amendments to the Social Security Act have been introduced into the House and Senate by Senators Wagner and Murray and Representative Dingell.

It is very important that every physician read that portion which most directly interests hospitals and the medical and allied professions, therefore, that portion of the bill referring to hospitals and the medical and allied professions is given in full. Comment is hardly necessary because the bill is self explanatory and places in the hands of the Surgeon General complete control of the profession and the hospitals in the United States. It is true that under the provisions of the bill there is to be created a National Advisory Medical and Hospital Council, composed of sixteen members. However, the bill provides that various organizations may make recommendations, but the final appointment is left entirely in the hands of the Surgeon General.

It seems evident from the fact that labor has already okeyed and undoubtedly will sponsor the passage of this legislation — that it will take the most vigorous action on the part of the medical profession and the hospital associations to modify or defeat this bill.

The National Physicians Committee has already, inaugurated a program to acquaint the medical profession and the public as a whole with the dangers of this bill. It would seem at the present moment that all parties interested in the modifications or defeat of this bill should rally to the support of The National Physicians Committee in their efforts at this time.

EXCERPTS FROM HOUSE BILL 2861

This Bill was introduced by Representative Dingell on June 3, 1943 and was referred to the Committee on Ways and Means. An identical Bill was introduced in the Senate the same day by Senators Wagner and Murray. The Senate Bill was referred to the Committee on Finance.

"A BILL to provide for the general welfare; to alleviate the economic hazards of old age, premature death, disability, sickness, unemployment, and dependency; to amend and extend the provisions of the Social Security Act; to establish a Unified National Social Insurance System; to extend the coverage, and to protect and extend the social-security rights of individuals in the military service; to provide insurance benefits for workers permanently disabled; to establish a Federal system of unemployment compensation, temporary disability, and maternity benefits; to establish a national system of public employment offices; to establish a Federal system of medical and hospitalization benefits; to encourage and aid the advancement of knowledge and skill in the provision of health services and in the prevention of sickness, disability, and premature death; to enable the several States to make more adequate provision for the needy aged, the blind, dependent children, and other needy persons; to enable the States to establish and maintain a comprehensive publi cassistance program; and to amend the Internal Revenue Code."

In addition to the several suggested amendments to existing provisions of the present Social Security Act, the provisions of this Bill most directly and vitally interesting to hospitals and the medical and allied professions are those relating to medical and hospitalization benefits. These are included in Section 11 of the Bill, amending Title IX of the Social Security Act to read as follows:

"FEDERAL MEDICAL, HOSPITALIZATION, AND RELATED BENEFITS

"Primary Medical and Hospitalization Benefits

"SEC. 901. (a) Every individual, who is currently insured and has been found by the Board to be eligible for benefits under this title in a current benefit year,

shall be entitled to receive general medical, special medical, laboratory, and hospitalization benefits after the effective date of this title.

"Dependent's Medical and Hospitalization Benefits

"(b) Every dependent (as defined in title XI of this Act), who has been found by the Board to be eligible for benefits under this title in a current benefit year, shall be entitled to receive general medical, special medical, laboratory, and hospitalization benefits, after the effective date of this title, if such dependent (1) is the wife or child of an individual who is currently insured, and (2) is not entitled to receive such benefits under subsection (a) of this section in the current benefit year.

"Maximum Hospitalization Benefits

"SEC. 902. The maximum number of days in any benefit year for which any individual may be entitled to hospitalization benefit under section 901 shall be thirty: PROVIDED, HOWEVER, That when the Board of Trustees finds that moneys in the separate account established in accordance with section 913 are adequate, the Surgeon General and the Social Security Board may through joint rule and regulation increase the maximum to not more than ninety days for the following year.

"Administration

"SEC. 903. (a) The Surgeon General of the Public Health Service is hereby authorized and directed to take all necessary and practical steps to arrange for the availability of the benefits provided under this title and of services and reports required by the Social Security Board in the determination of disability under titles II and VIII of this Act.

"(b) In carrying out the duties imposed upon him by subsection (a) of this section, the Surgeon General is hereby authorized to negotiate and periodically to renegotiate agreements or cooperative working arrangements with appropriate agencies of the United States, or of any State or political subdivisions thereof, and with other appropriate public agencies, and with private agencies or institutions, and with private persons or groups of persons, to utilize their services and facilities and to pay fair, reasonable, and equitable compensation for such services or facilities, and for the Trust Fund to receive reimbursements for service rendered with respect to individuals in circumstances under which benefits are not authorized under this title, and to negotiate and periodically to renegotiate agreements or cooperative working arrangements for the purchase or availability of supplies and commodities necessary for the benefits provided under this title; and, after approval by the Social Security Board, to enter into contracts for such services, facilities, supplies, and commodities (subject to the limitations specified in subsection (g) of section 915).

"(c) The Surgeon General shall periodically notify the Board of obligations incurred under contracts entered into by him in accordance with the provisions of this section and to whom such obligations obtain. Thereupon the Board shall authorize and certify disbursements from the Trust Fund to meet such obligations, and such certified disbursements shall be paid from the Trust Fund.

"National Advisory Medical and Hospital Council

"SEC. 904. (a) There is hereby established a National Advisory Medical and Hospital Council (referred to as the 'Council') to consist of the Surgeon General as Chairman and sixteen members to be appointed by the Surgeon General. The sixteen appointed members shall be selected from panels of names submitted by the professional and other agencies and organizations concerned with medical services and education and with the operation of hospitals and from among other persons, agencies, or organizations informed on the need for or provision of medical, hospital, or related services and benefits. Each appointed member shall hold office for a term of four years, except that any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term, and the terms of office of the members first taking office shall expire, as designated by the Surgeon General at the time of appointment, four at the end of the first year, four at the end of the second year, four at the end of the third year, and four at the end of the fourth year after the date of the first meeting of the Council. Each appointed member shall receive compensation at the rate of $25 per day during the time spent in attending meetings of the Council and for the time devoted to official business of the Council under this Act, inclusive of travel time; and actual and necessary traveling expenses and per diem in lieu of subsistence, allowable in accordance with the Standardized Government Travel Regulations, while away from his place of residence upon official business under this Act.

"(b) The Council is authorized to advise the Surgeon General with reference to carrying out the provisions of this Act, including (1) professional standards of quality to apply to general and special medical benefits; (2) designation of specialists; (3) methods and arrangements to stimulate and encourage the attainment of high standards through coordination of the services of general practitioners, specialists, laboratories, and other auxiliary services, and through the coordination of the services of practitioners with those of educational and research institutions, hospitals and health centers, and through other useful means; (4) standards to apply to participating hospitals and the establishment and maintenance of the list of participating hospitals; (5) adequate and suitable methods and arrangements of paying for medical and hospital services; (6) studies and surveys of the services furnished by practitioners and hospitals and of the quality and adequacy of such services; (7) grants-in-aid for professional education and research projects; (8) establishment of special advisory, technical, local, or regional boards, committees, or commissions.

"Guiding Principles and Provisions for Administration

"SEC. 905. In the administration of this title, with respect to provision of benefits furnished by physicians and with respect to payment for their services, after consultation with the Council, the Surgeon General shall be guided by the following principles and provisions as far as these are applicable:

"(1) Any physician legally qualified by a State to furnish any services included as benefits under this title shall be qualified to furnish such services as benefits under this title (except as otherwise provided in paragraph (4) of this section) in accordance with such rules and regulations as may be prescribed.

"(2) Every individual entitled to receive as a benefit services from a physician shall be permitted to select, from among those designated in paragraph (1) of this section, those from whom he shall receive such services, except specialist services, subject to the consent of the practitioner selected, and to change such selection in accordance with such rules and regulations as may be prescribed.

"(3) The Surgeon General shall publish and otherwise make known in each area to individuals entitled to benefit under this title the names of general practitioners who have agreed to furnish services as benefits under this title and to make such lists of names readily available to individuals entitled to make the selection of a general practitioner as provided under paragraph (2) of this section.

"(4) Services which shall be deemed to be specialist services shall be those so designated by the Surgeon General, and the practitioners from among those included in paragraph (1) above who shall be qualified as specialists and entitled to the compensation provided for specialists shall be those so designated by him as qualified to furnish such specialist services and only with respect to the particular class or classes of specialist services he shall determine for each such specialist, in accordance with general standards previously prescribed by him after consultation with the Council and utilizing standards and certifications developed by competent professional agencies.

"(5) The services of specialists shall ordinarily be available only upon the advice of the general practitioner.

"(6) The methods of administration, including the methods of making payments to practitioners, shall (A) ensure the prompt and efficient care of individuals entitled to benefits; (B) promote personal relationships between physician and patient; (C) provide professional and financial incentives for the professional advancement of practitioners and encourage high standards in the quality of services furnished as benefits under this title through the adequacy of payments to practitioners, assistance in their use of opportunities for post-graduate study, coordination among the services furnished by general practitioners, specialists, laboratory, and other auxiliary services, coordination among the services furnished by practitioners, hospitals, health centers, educational, research, and other institutions, and between preventive and curative services, and otherwise; (D) aid in the prevention of disease, disability, and premature death; and (E) ensure the provision of adequate service with the greatest economy consistent with high standards of quality.

"(7) Payments from the Trust Fund to general medical practitioners, for services under this title, shall be made (A) on the basis of fees for services rendered to individuals entitled to benefits, according to a fee schedule approved by the Surgeon General; or (B) on a per capita basis, the amount being according to the number of individuals entitled to benefit who are on the practitioner's list; or (C) on a salary basis, whole time or part time; or (D) on a combination or modification of these bases, as the Surgeon General may approve, according in each area as the majority of the general medical practitioners to be paid for such services shall elect, subject to such necessary rules and regulations as may be prescribed.

"(8) The methods of making payments from the Trust Fund to designated specialists for services under this title, furnished as special medical benefits, may include payments on salary (whole time or part time), per session, fee-for-service, per capita, or other basis, or combinations thereof.

"(9) Payments for particular services or classes of services furnished as benefits under this title may be nationally uniform or may be adapted to take account of relevant factors.

"(10) The Surgeon General may prescribe maximum limits to the number of potential beneficiaries for whom a practitioner may undertake to furnish general medical benefit, and such limits may be nationally uniform or may be adapted to take account of relevant factors, as the Surgeon General may determine.

"(11) In any area where payment for the services of a general practitioner is on a per capita basis, the Surgeon General shall distribute (subject to limits prescribed in accordance with paragraph (10) of this section) on a pro rata basis among the practitioners of the area on the list established pursuant to paragraph (3) of this section those individuals in the area who, after due notice, have failed to select a general practitioner or who having made a selection have been refused by the practitioner.

"(12) In each area the provision of general medical benefit for all individuals entitled to receive such benefit shall be a collective responsibility of all qualified general practitioners in the area who have undertaken to furnish such benefit.

"Hearings and Appeals

"SEC. 906. The Surgeon General is hereby authorized to establish necessary and sufficient hearing and appeal bodies to hear and determine complaints from individuals entitled to benefits under this title, from

practitioners who have entered into agreement for the provision of services as benefits under this title, and from participating hospitals, and to take such steps as may be appropriate and are not contrary to any other provision of this Act to remedy the grounds for complaint, if any; and to establish necessary and sufficient hearing and appeal bodies to hear and determine disputes among practitioners and/or participating hospitals, and to take such steps as may be appropriate and are not contrary to any other provision of this Act to settle such dispute: PROVIDED, That with respect to any complaint or dispute involving matters or questions of professional practice or conduct the hearing body shall contain competent and disinterested professional representation: PROVIDED FURTHER, That with respect to any complaint or dispute involving only matters or questions of professional practice or conduct the hearing body shall consist exclusively of such professional persons.

"Participating Hospitals

"SEC. 907. (a) The Surgeon General shall publish a list of institutions found by him to be participating hospitals, and shall from time to time revise such list to include thereon all institutions which he thereafter finds to be participating hospitals and to withdraw therefrom all institutions which he finds cease to meet the requirements of a participating hospital. Inclusion of an institution upon such list shall, unless and until withdrawn by him, be conclusive as to the Surgeon General that such institution is a participating hospital for the purpose of this section.

"(b) The Surgeon General is directed to make findings of fact and decisions as to the status of any institution as a participating hospital in accordance with general standards previously prescribed by him after consultation with the Council. Any institution which is not included by him in the list of participating hospitals, or having been included thereon has been withdrawn therefrom, may file with the Surgeon General a petition to be included in such list, which petition shall set forth such information as the Surgeon General may deem necessary to establish that such institution meets the requirements of a participating hospital. Whenever requested by any institution the petition of which has been denied, the Surgeon General shall give such institution reasonable notice and an opportunity for a fair hearing with respect to the decision denying such petition, and, if a hearing is held, shall, on the basis of evidence adduced at the hearing, affirm, modify, or reverse his findings of fact and such decision.

"Application for Hospitalization Benefits

"SEC. 908. No application by an individual for hospitalization benefits shall be valid under this title with respect to any day of hospitalization if such application is filed more than ninety days after such day, or with with respect to any day of hospitalization for mental or nervous disease or for tuberculosis after such diagnosis has been made.

"Relation With Workmen's Compensation Benefits

"SEC. 909. No individual shall be entitled to any benefit under this title with respect to an injury, disease, or disability on account of which any medical or hospitalization service is being received, or upon application therefor would be received, under a workmen's compensation plan of the United States or of any State.

"Provision of Benefits for Non-Insured Persons

"SEC. 910. (a) Notwithstanding any other provision of this title, any or all benefits provided under this title to individuals entitled to such benefits may be furnished to other individuals for any period for which equitable payments to the Trust Fund on behalf of such other individuals have been made or for which reasonable assurance of such payments has been given by public agencies of the United States, the several States, or any of them or of their political subdivisions, such payments to be in accordance with agreements and working arrangements negotiated by the Surgeon General with such public agencies and in accordance with contracts into which he may enter after approval by the Social Security Board. Benefits furnished to such other individuals shall, as far as may be practical in each area, be of the same quality, be furnished by the same methods, and be paid for through the same arrangements, as obtains for benefits furnished to individuals entitled to benefits under this title.

"(b) The provisions of subsection (a) of this section shall extend to groups of persons for whom the Congress of the United States has made or may make provision and to moneys appropriated therefor, and to moneys provided for grants to States or for administrative expenses under this Act and other Acts of Congress.

"Limitations on General Medical and Laboratory Benefit

"SEC. 911. (a) The Surgeon General and the Social Security Board may, under joint rules and regulations, determine for any calendar year or part thereof that every individual entitled to general medical benefit may be required by the physician furnishing such benefit to pay a fee with respect to the first service or with respect to each service in a spell of sickness or course of treatment. Such determination shall be made only after good and sufficient evidence indicates that such a determination is necessary and desirable to prevent or reduce abuses of entitlement to such benefit, and shall fix the maximum size of such fee at an amount estimated to be sufficient to prevent or reduce abuses and not such as to interpose a substantial financial restraint against proper and needed receipt of medical benefit. Such determination may also limit the application of such fees to home calls, to office visits, or to both, and may fix the maximum total amount of such fee payments in a spell of sickness or course of treatment, and may also provide for differences in the maximum size of such fees or total amount of such

fee payments for urban and rural areas and with regard for differences among States or communities.

"(b) The Surgeon General and the Social Security Board, having regard for current and prospective amounts in the separate account established in accordance with section 913, may, under joint rules and regulations, limit for any calendar year or part thereof the cost of laboratory benefit which shall be borne by payments from such Fund, and such limitation may be with respect to a class of services, supplies, or commodities, with respect to maximum payments per beneficiary in a benefit year, with respect to a specified fraction of the cost, or combinations thereof.

"Report Concerning Dental, Nursing, and Other Benefits

"SEC. 912. The Surgeon General and the Social Security Board jointly shall have the duty of studying and making recommendations as to the most effective methods of providing dental, nursing, and other needed benefits not already provided under this title, and as to expected costs for such needed benefits and the desirable division of the costs between (1) the financial resources of the social-insurance system and (2) payments to be required of beneficiaries receiving such benefits, and shall make reports with recommendations as to legislation on such benefits not later than two years after the effective date of this title.

'Medical Care and Hospitalization Account'.

"SEC. 913. (a) There is hereby established within the Trust Fund a separate account to be known as the 'Medical Care and Hospitalization Account'.

"(b) The Managing Trustee shall credit to this account amounts equivalent to—

"(1) One-fourth of the contributions paid in accordance with sections 960 and 961, respectively, of this Act, and

"(2) Three-sevenths of the contributions paid in accordance with sections 963, 964, and 965, respectively, of this Act, (including applicable shares of interest, penalties, and additions to the contributions) and a proportionate part of the earnings of the Trust Fund, determined in accordance with the average daily balance to the credit of this account.

"(c) The Managing Trustee shall also credit to this account reimbursements to the Trust Fund made in accordance with the provisions of sections 903 and 910.

"(d) The Managing Trustee shall debit against this account the amounts disbursed from the Trust Fund for the purpose of paying or providing benefits under this title and amounts estimated (in accordance with the provisions of subsection (h) of section 969) by him, the Chairman of the Social Security Board and the Surgeon General to be expended for the administration of the provisions of this title.

"(e) The amount which stands to the credit of this account shall be available for the payment or provision of benefits and for administrative expenses under this title, and for no other purposes; and the sum of disbursements for the payment or provision of benefits under this title and for the payment of reimbursements to the Treasury for administrative expenses incurred therewith shall not exceed the amounts which stand to the credit of this account, as specified in this section.

"Rules and Regulations

"SEC. 914. The Surgeon General, after consultation with the Social Security Board, and with the approval of the Federal Security Administrator, shall make and publish such rules and regulations, not inconsistent with other provisions of this Act, as may be necessary to the efficient administration of this title.

"Definitions

"SEC. 915. (a) The term 'general medical benefit' means services furnished by a legally qualified physician, including all necessary services such as can be furnished by a physician engaged in the general practice of medicine, at the office, home, hospital, or elsewhere, including preventive, diagnostic and therapeutic treatment and care, and periodic physical examination.

"(b) The term 'special medical benefit' means necessary services requiring special skill or experience, furnished at the office, home, hospital, or elsewhere by a legally qualified physician who is a specialist with respect to the class of service furnished.

"(c) The term 'laboratory benefit' means such necessary laboratory or related services, supplies, or commodities, not provided to a hospitalized patient and not included in subsections (a) and (b) of this section, as the Surgeon General may determine, including chemical, bacteriological, pathological, diagnostic and therapeutic X-ray, and related laboratory services, physiotherapy, special appliances prescribed by a physician, and eye glasses prescribed by a physician or other legally qualified practitioner.

"(d) The term 'period of hospitalization' means a period of one or more consecutive days of hospitalization.

"(e) The term 'day of hospitalization' means any day for the whole of which an individual has been confined in a participating hospital on the advice of a legally qualified physician for the purpose of receiving necessary hospital service: PROVIDED, That, with respect to a day in which an individual is admitted to or discharged from a hospital, such term may, in accordance with regulations to be prescribed by the Surgeon General, include a period of time of less than a whole day.

"(f) The term 'participating hospital' means an institution providing all necessary and customary hospital services, and found by the Surgeon General to afford professional service, personnel, and equipment adequate to promote the health and safety of individuals customarily hospitalized in such institution and to have procedures for the making of such reports

and certifications as the Surgeon General and the Social Security Board may from time to time require, to assure that hospitalization benefit will be provided only to or on behalf of individuals entitled thereto: PROVIDED, That with respect to inclusion in the list of participating hospitals the Surgeon General may accredit a hospital for limited varieties of cases and may accredit an institution for the care of the chronic sick; and that in determining the adequacy of the professional service, personnel, and equipment of any such institution, the Surgeon General may take into account the purpose of such limited accrediting, the type and size of community which the institution serves, the availability of other hospital facilities, and such other matters as he may deem relevant.

"(g) The term 'hospitalization benefit' means an amount, as determined by the Surgeon General after consultation with the Council and after approval by the Social Security Board: Not less than $3 and not more than $6 for each day of hospitalization, not in excess of thirty days, which an individual has had in a period of hospitalization; and not less than $1.50 and not more than $4 for each day of hospitalization in excess of thirty in a period of hospitalization; and not less than $1.50 and not more than $3 for each day of care in an institution for the care of the chronic sick. In lieu of such compensation, the Surgeon General may, after approval by the Social Security Board, enter into contracts with participating hospitals for the payment of the reasonable cost of hospital service, at rates for each day of hospitalization neither less than the minimum nor more than the maximum applicable rates specified in this subsection, such payment to be full reimbursement for the cost of essential hospital services, including the use of ward or other least expensive facilities compatible with the proper care of the patient.

"(h) For the purpose of this title, an individual shall be deemed 'currently insured' if he had during his eligbility period been paid wages of (a) not less than $150, and (b) not less than $50 for each of not less than two calendar quarters."

It is proposed that every employer shall pay a social insurance contribution equal to 6% of the wages paid to his employees up to $3,000 a year in each individual case, and that every individual employee shall pay a social insurance contribution equal to 6% of the wages received by him up to $3,000 a year in each individual case, making a total of 12% social security tax from the employer and employee combined. It is further proposed that every self-employed individual shall pay a social insurance contribution equal to 7% of the market value of his services rendered, but not including that part of any remuneration in excess of $3,000 for any calendar year.

It is further proposed that one quarter of the 12% tax paid by the employer and the employee combined and three-sevenths of the amounts paid in by the self-employed and certain other groups shall be allocated for the maintenance of hospitalization and medical benefits. It has been estimated that 1% would be sufficient to pay for the hospitalization expense and 2% to provide for medical benefits.

June, 1943

PENICILLIN BIBLIOGRAPHY

Announced in the June issue of Medical Journal Abstracts, the very complete 93-page annotated bibliography, Penicillin and Other Antibiotics Produced by Microorganisms, published by E. R. Squibb & Sons, has had widespread distribution, both to physicians in civilian practice as well as to those with our armed forces. It is distributed, as an editorial addendum states, "with the hope that in the interim all in medical practice who are interested in Penicillin may have an opportunity to post themselves on the preliminary investigation which preceded its general accessibility."

The bibliography is divided into three parts. The first portion, containing abstracts of 105 papers, deals with Penicillin, and since the arrangement is chronological the historically-minded reader can follow investigational progress from Fleming's announcement of his discovery in 1929 up to the clinical report of Mayo Clinic's Doctors Herrell, Cook and Thompson in the May 29, 1943 issue of the J.A.M.A.

The second part of the bibliography contains 124 papers dealing with Tyrothricin and Other Antibiotics from Bacteria. The third section includes 20 references to Antibiotics from Various Organisms and to reviews of all these subjects. The utility of the bibliography is measurably enhanced by a very detailed author and subject index. The publishers announce copies are available gratis to physicians; address Professional Service Department, E. R. Squibb & Sons, 745 Fifth Avenue, New York, 22, N. Y.

"What's your name, Honey?"

"Waste."

"What a coincidence . . . mine is Haste."

Medicine's Role in the War Effort

THE COMMISSIONING OF INTERNS AND RESIDENTS

The Officer Procurement Service, Washington, D. C., issued a memorandum (FT-108) on August 7 to commanding generals of service commands, explaining the action to be taken in procuring physician interns and residents for appointment in the Medical Corps of the Army and requiring immediate action by each district office. The physicians to whom this memorandum applies are (1) interns graduated from medical schools during March-June 1943 who have not yet been commissioned in the Army and Navy and (2) residents who graduated in June 1942 or before who have not yet been commissioned in the Army and Navy. All such interns and residents are eligible for commissioning except those previously physically disqualified by the Surgeon General or otherwise ineligible for commissions under army regulations. Interns and residents qualified by Selective Service as IV-F because of physical disability and female interns and residents are potential candidates.

The source of such candidates for medical commissions are the public and private hospitals with 50 or more beds. Immediate contact with the superintendent of all such hospitals must be made requesting the names of all potential intern and resident candidates and permission to get in touch with them at times convenient to all.

District offices will use every effort to sell potential candidates on their patriotic duty to take steps to qualify for commissions. Deferment from induction will not be available to potential candidates on completion of their current internships and residencies. No such candidate who is commissioned will be called to active duty until the completion of his internship or residency. The Army has no intention to deprive hospitals of the services of necessary physicians, interns and residents until completion of their internships and residencies; it has every intention, the memorandum states, to commission in the Medical Corps all such interns and residents at the earliest possible moment, postponing their call to active duty until the completion of their respective terms of their internships and residencies. A list of the names of all potential candidates in these groups who refuse or wilfully neglect to be processed for commission will be maintained.

All potential candidates covered by this memorandum are deemed to be "cleared" by the Procurement and Assignment Service and to have been "determined as available," in accordance with a letter from the Procurement and Assignment Service dated August 7 addressed to all superintendents of hospitals having interns and residents and to corps area and state chairmen. On the same day on which the interns and residents fill out their applications, the hospitals which these physicians are serving should apply to the state chairman of the Procurement and Assignment Service for their deferment until the terms of their internships and residencies have expired. All interns are deferred for the term of one year internship, but if a resident is deemed by the Procurement and Assignment Service as not essential to the hospital he should accept a commission and expect to go on active duty immediately.

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BUY AN EXTRA BOND!

APPOINTMENT OF OFFICERS FROM CIVIL LIFE

The Acting Secretary of War, Robert P. Patterson, on July 13 issued a memorandum to the Secretary of War's Personnel Board, Officer Procurement Service, commanding generals of the Army Ground Forces, the Army Service Forces and the Army Air Forces, and Division of War Department General Staff, pointing out that, during the period of very rapid expansion of the Army last year and of the critical shortage of commissioned officers, civilians were appointed in larger numbers to commissioned grades. Now the Army is rapidly approaching its maximum planned strength and officer shortages, except in certain very critical categories, namely officers of the medical department, service pilots and chaplains, have been largely overcome. The Acting Secretary of War, therefore, directed that hereafter the Secretary of War's Personnel Board closely scrutinize all recommendations for appointment of civilians other than the exceptions noted and withhold approval in all cases in which it is not clearly indicated that the individual concerned possesses outstanding special qualifications of a technical or professional nature urgently required by the army and not obtainable from any other source: also that more effective methods be adopted, under direction of the General Staff, to classify properly and assign personnel now in the service, to the end that requirements for commissioned officers with professional or technical qualifications other than those indicated be obtained through the reassignment of qualified officers or through the selection and appointment of qualified enlisted men, that the Assistant Chief of Staff take action to reduce to the minimum the number of special categories that may be appointed from civil life and that the commanding generals of the three major commands and their subordinates refrain from requesting the appointment of civilians as commissioned officers except in cases in which the need is so urgent and the qualifications of the individual so unusual that no other solution is possible.

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THE NAVY WANTS SIX HUNDRED WOMEN DOCTORS

Reserve commissions in the Medical Corps of the Navy are now open to qualified women physicians in the ranks of lieutenant commander, lieutenant and lieutenant (junior grade). The Bureau of Medicine and Surgery has announced an initial request for six hundred women doctors, two hundred of them to be commissioned in each of the available ranks.

Under terms of Public Law 38, passed by Congress last spring, women doctors are being accepted in the Medical Corps with the same status as men doctors. They will be assigned to duty at various types of shore medical establishments within the continental limits of the United States.

In applying for commissions in the Medical Corps, women doctors must meet the same professional requirements as men and must be approved for military duty by the Procurement and Assignment Service for Physicians in order to prevent undue depletion of medical services in civilian communities. The policy has also been established that women doctors will not be accepted if they are married to Navy men or if they have children under 18 years of age.

The general requirements for women physicians are these: For general medical officers the age limits are 21 to 35; for specialist medical officers the age limits are 27 to 50. Applicants must be graduates of an accredited medical school and have had at least one year's internship in an approved hospital. They must be duly licensed to practice medicine and be a member of a state or local medical society.

An exception to these requirements is made for women who apply for commissions as general medical officers immediately on completion of medical school. In this case the internship, license and membership stipulations may be waived.

In addition, applicants for specialist commissions must have had at least three years' recent practical experience in a particular specialty.

The eight women doctors at present holding commissions as lieutenants (junior grade) with the W-V(S) classification of the Women's Reserve, U. S. Naval Reserve, are eligible for transfer to the Medical Corps with an MC-V(S) or MC-V(G) classification.

Applications should be submitted to the nearest office of Naval Officer Procurement.

HOSPITALIZATION IN THE FINAL BATTLE IN TUNISIA

Lieut. Gen. Omar Bradley, commander of the U. S. Army Second Corps in the final battle in Tunisia, in his report to Gen. George C. Marshall, chief of staff, covering operations between April 23 and May 9, made the following comments concerning hospitalization:

"The medical plan was drawn up so as to provide quick evacuation. Initial locations placed the evacuation hospitals within sound of artillery fire and almost within sight of some of the enemy's bombing operations. Locating these units well forward, however, in no way affected the efficiency of the doctors and nurses, who displayed an admirable coolness and accomplished results which, under normal hospital conditions, would have been considered excellent. Their forward locations reduced the time interval necessary for a wounded man to receive adequate care.

"The ambulance hauls to the base hospital at Bone varied from 85 to 110 miles over rough and tortuous roads. This distance was too great for evacuation of seriously wounded patients, particularly chest and abdominal cases. As a result the evacuation hospital which had initially been set up to take care of patients who would remain in the area until they could return to duty was given the mission of attending to the more seriously wounded.

"When the enemy surrendered in northern Tunisia he was operating a total of five hospitals, a total of 600 beds. By May 12 there were 745 enemy patients in our hospitals.

"Blood donors in the hospitals became a problem, and additional personnel from depot companies and clearing companies of medical battalions were utilized for this purpose. One hospital unit formed its own blood bank by cross matching these individuals, withdrawing the blood and placing it in refrigerators where it was easily accessible. It was found that this blood could be kept for several days and then given cold."

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SITES FOR MORE ARMY HOSPITALS

Brig. Gen. Joseph B. Sweet, commanding general of the Communications Zone, is reported to have announced that a site has been selected near Beaumont, Calif., for an army hospital of about 750 beds, which it is expected will be completed in October. According to the Banning, Calif., *Record* of July 22, another army hospital of 1,000 beds is to be constructed at the city limits of Banning. An evacuation hospital has already been established on this site to take care of soldiers from the desert area.

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THE WAVES DO EXCELLENT WORK

The Bureau of Medicine and Surgery has received many favorable comments concerning the excellent work being done by the Hospital Corps Waves on duty at naval hospitals throughout the country. Among the 600 selected monthly, more than 10 per cent are qualified technicians in the allied fields of medical work, about 10 per cent are college graduates, and about 25 per cent have one year or more years of college. The Waves being accepted for the Hospital Corps of the Navy are a true cross section of young womanhood in America and represent rural communities, large cities, factories, farms and schools. Their work is vitally important in that it releases male hospital corpsmen for sea or foreign service.

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INCREASED PRODUCTION OF PENICILLIN

Additional facilities for the manufacture of penicillin have been acquired in Rensselaer, N. Y., by the Winthrop Chemical Company, Inc., according to Dr. Theodore G. Klumpp, president of the company. This drug is now allocated exclusively to the armed forces, millions of units being supplied weekly. The "unit" system of measurement derives from Oxford University. Pure penicillin has not yet been isolated. The "Oxford unit" is based on comparison with standard material furnished by Oxford University to laboratories throughout the world. One million units weigh about 1/5 ounce. Sulfonamide resistant cases of gonorrhea can be cured promptly by as little as 100,000 units of penicillin. Larger doses are usually needed for osteomyelitis and other infections.

Penicillin was discovered by Dr. Alexander Fleming, English scientist, in 1929. It was not then available for treatment of disease because of the extremely small quanities that could be produced and the instability of the substance. The present interest in penicillin dates from 1939, when important information regarding the chemistry of the extract was obtained and it

was found that the calcium and sodium salts are more stable than the parent substance. The exact structure of penicillin is unknown at present, and until it has been determined artificial production by synthesis is impossible. However, much has been learned about the "empirical" or general chemical formula.

Penicillin is now under strict allocation of the War Production Board for national defense and there is no prospect that a surplus will soon be available for civilian use.

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RESTRICTION ON MANUFACTURE OF MEDICAL FURNITURE

The War Production Board issued on July 13 Schedule 3 to General Limitation Order L-214, placing restrictions on the manufacture of items and models of medical and surgical furniture and related equipment. This order provides, among other things, that no manufacturer shall make or continue to make any items of such equipment and furniture other than those on list A attached to the schedule, and the listed items shall be made only in the number of models specified on the list which conform with the descriptions set forth. However, a manufacturer may make any number of models of medical and surgical furniture and related equipment not listed on list A and any number of models and items on list A in excess of the number specified provided they do not contain any metal other than iron and carbon steel and that the weight of such metal comprises not more than 25 per cent of the total weight of the model. No manufacturer shall incorporate in any medical and surgical furniture and related equipment any stainless steel or other alloy steel, monel metal, copper, copper base alloy, nickel, aluminum or zinc, except as specified in list A. This restriction does not apply to the use of copper and copper base alloy in the electrical circuit or electrical connections of any items listed in list A.

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CLASS IN DEEP DIVING

The Bureau of Medicine and Surgery announces that a class in deep diving for medical officers will be assembled at the Diving School, Navy Yard, Washington, D. C., on September 13, and that twelve medical officers have been assigned to this instruction.

AVIATION MEDICAL EXAMINERS

Graduation exercises were held at the School of Aviation Medicine, Randolph Field, Texas, on June 3, following completion of the course for Aviation Medical Examiners. The didactic portion of the course is conducted at Randolph Field, Texas, and the practical portion of the course at the three army air forces classification centers. The list of students, graduating on June 3 from Illinois: Vaughn A. Avakian, 1st Lieut., Chicago; Thomas H. Culhane Jr., Captain, Rockford; Robert F. Dearborn, 1st Lieut., Byron; Robert G. Fox, 1st Lieut., Park Ridge; Harold J. Freiheit, 1st Lieut., Highland; Norman E. Goulder, 1st Lieut., Chicago; Robert D. Hart, 1st Lieut., Peoria; Glenn L. Judson, 1st Lieut., Evanston; Irwin A. Kallen, Captain, Chicago; Robert T. LeSage, 1st Lieut., Dixon; Emil D. Levitin, Captain, Chicago; Walter Lewinnek, 1st Lieut., Mason City; William A. Loeppert, 1st Lieut., Chicago; Keith J. Long, 1st Lieut., Fairview; George B. McNeely, 1st Lieut., Stanford; Albert G. Martin, 1st Lieut., Aurora; Howard W. Meredith, Captain, Chicago; John W. Monroe, 1st Lieut., Benton; Herman R. Moser, 1st Lieut., Aurora; Alfred H. Movius Jr., 1st Lieut., Oak Park; Carl F. Neuhoff, 1st Lieut., Peoria; Henry C. Oleschowski, 1st Lieut., Chicago; Herbert Rodewald, 1st Lieut., Murphysboro; Julian J. Sitney, 1st Lieut., Chicago; Ralph D. Sullivan, 1st Lieut., Chicago; William O. Townsend, 1st Lieut., Chicago; Elliott M. Tratt, 1st Lieut., Morris; Arthur R. Weihe, 1st Lieut., Oak Park.

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SPECIAL LAPEL AND SLEEVE INSIGNIA FOR MEDICAL AND DENTAL STUDENTS

Special lapel and sleeve insignia have been authorized, according to the Bureau of Medicine and Surgery, for students in the Navy V-12 Program attending medical and dental colleges. Such students will wear the regular midshipmens' uniform. On the lapels of the blue uniform coat medical students will wear a device composed of the oak leaf and acorn insigne of the medical corps superimposed on a fouled anchor at a 45 degree angle. Similarly, dental students will wear the dental corps insigne superimposed on a fouled anchor. In addition, the number of years of completed medical or dental study will be indicated by gold sleeve stripes. These stripes, one for each year com-

pleted, will be 1½ inches long and ⅛ inch wide. They will be sewed 2 inches above the cuff and at a 45 degree angle to the cuff line. First year medical or dental students will wear clean sleeves. When in khaki uniforms, medical and dental students will wear pin-on insignia, similar to the lapel insignia, on each side of the shirt collar.

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THE SUPPLY OF PHYSICIANS

More than 4,000 seniors who entered the accelerated medical education program over a year ago are now well into their intern year and will complete that training before March 31, 1944. They will thus become available for military and civilian practice three months earlier than in normal times. Even half of these, should only that small proportion be commissioned, can care medically for over 300,000 troops. If this number of men is thereby enabled to enter active service three months early, before April of next year, the accelerated program will have justified itself in supplying the men required. All medical schools are accelerating throughout the four year program except one which limits the program to the junior and senior years. All are admitting classes every nine months except one which admits a class every year and one which admits a class each quarter.

A study of the number of graduates in the past forty years reveals trends of interest and importance. During approximately the first half of this period the number of graduates declined from over 5,000 annually to about half that number. This reduction paralleled the closing of many medical schools, one half of which disappeared during the period of enforcement of high standards in medical education. During the last two decades the number of graduates gradually rose; even before the war it again exceeded 5,000. This occurred in spite of an essentially unchanged number of medical schools. In 1942 there were about as many graduates from seventy-seven high grade schools as there were in 1905 from a hundred and sixty schools, most of which were decidedly inferior. This upward trend is probably warranted in the cases of many schools which have increased their faculties and facilities. In other instances increased enrolments and graduates are probably not justified by proportional increases in staff and facilities.

Now the annual number of graduates far exceeds that of any period in the history of this country, approximating twice the number of physicians who die in normal years. This present large number of graduates is to be contrasted sharply with the figure for 1922, when only 2,500 received the M.D. degree. This figure — an all time low in medical graduates — was also related to war. It followed the low registration of freshmen in 1918, when less consideration was given to the necessity for continued training of physicians in wartime. Fortunately the last war ended relatively quickly, so that this lack of adequate medical preparation was not as much in evidence as it would surely be in the present conflict.

Editorial—J.A.M.A., Aug. 14, '43.

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APPOINTMENT OF MARRIED NURSES IN ARMY NURSE CORPS

For the duration of the war and for six months thereafter, married nurses who meet all other requirements for military service may now be accepted for appointments in the Army Nurse Corps as Reserve nurses. Only those nurses who are willing to accept assignment unreservedly will be appointed. A nurse with one or more dependent children under 14 years of age may not qualify for appointment.

★ ★

NURSES' AIDES ELIGIBLE FOR CIVILIAN SECURITY BENEFITS

All volunteer nurses' aides should be enrolled in the U. S. Citizens Defense Corps, the medical division of the Office of Civilian Defense states in a special announcement, Circular Medical Series No. 32. The immediate importance of this announcement lies in the fact that nurses' aides must be enrolled in the Nurses' Aide Unit of the Citizens Defense Corps if they are to be eligible for the benefits provided under the War Civilian Security Program of the Federal Security Agency for all members of or trainees for the Citizens Defense Corps who may be injured in line of duty. Nurses' aides at present working in hospitals and health agencies are considered to be in training for service in care of the wounded in the event of an enemy attack or other wartime disaster. They are therefore eligible for membership in the Defense Corps and are thus eligible for the benefits of War Civilian

Security after enrollment. It is suggested that the local chief of Emergency Medical Service and the local nurse deputy arrange with the Red Cross Nurses' Aide Committee to have the required CDC oath administered at the graduation ceremony. All nurses' aides who have completed their training since the program was initiated but have failed to enroll in the Defense Corps should now become enrolled members. Women who are still undergoing preliminary training as nurses' aides but have not yet graduated are also eligible for benefits if they are properly registered with the personnel officers of the appropriate Citizens Defense Corps as trainees for the nurses' aide unit.

NEW METHOD OF MAKING SEA WATER DRINKABLE

The Navy Department announced on June 8 that a simple method of making sea water safe to drink has been perfected at the Naval Medical Research Institute, Bethesda, Md. The method, which appears to be more practical than any other yet devised, except distillation, is intended primarily for use on rubber life rafts carried on air craft. The equipment consists of two chemical compounds and four plastic bags each having a capacity of slightly more than a quart. The survivor dissolves one of the chemical compounds in sea water contained in one of the bags, then pours the mixture into another bag that contains a filter sac. The product is emptied into the third bag and the first step is repeated except that the second chemical is used. After the chemical has acted, the water is filtered in the fourth bag. Two of the four steps are eliminated if only two of the bags are used. In this case one container serves for dispersion and filtration of each chemical compound. By the new method of desalination, a survivor who started out with ten of the chemical packets in the necessary bags would be assured of a twenty day supply of drinking water. If there were five persons in the life boat, the supply would be enough for four days.

The composition and design of the bags are the result of several months of experimentation at the Naval Medical Research Institute. The process of removing sodium salts from sea water was discovered by Lieut. (j.g.) Claire R. Spealman, hospital volunteer specialist, and further developed by Lieut. William V. Consolazio, hospital volunteer specialist, chief chemist of the Naval Medical Research Institute, and other members of the staff. Research was carried out under the direction of Capt. William L. Mann, M. C., medical officer in command of the Naval Medical Research Institute, and Dr. A. C. Ivy, scientific director of the institute, and the new method was announced by Rear Admiral Ross T. McIntire, Surgeon General of the Navy.

TROUBLE PRETTY WELL DIVIDED

"And tho' to us it seems one sided,
Trouble is pretty well divided,
If we could look in every heart,
We'd find that each one has its part,
And those who travel Fortune's road,
Sometimes carry the biggest load."

—Anonymous.

In spite of the steady improvement in diagnostic techniques and facilities during the past twenty years, little substantial progress has been made in finding cases of early tuberculosis. The reasons for this failure are too well known to call for discussion here. Briefly they can be reduced to two facts: early tuberculosis rarely gives rise to symptoms, and apparently well people seldom consult a doctor. Henry D. Chadwick, M.D. and Alton S. Pope, M.D. The Modern Attack on T.B.

In some of the European countries pneumonia is a chief cause of death. If it can be treated early with one of the sulfa drugs the mortality can be reduced probably by 50% to 75%.

The second major cause of death is tuberculosis and all age groups of the population will be affected. Under the conditions of war and military occupation, the prevalence of the disease is undoubtedly increasing, and it will be one of the principal problems of the reconstruction period, as it was after the last war. This time we should be better equipped to fight tuberculosis, because we have learned that it is a community problem and can be better dealt with through a specialized program. In combating tuberculosis, the first problem will be to locate the cases. Persons with open lesions should be isolated and taught how to care for themselves so as to be of the least possible danger to those with whom they must come in contact. In locating cases, traveling diagnostic units, including X-ray equipment, will be essential. Locating the case is only the initial step; the big problem is to reduce contagion by removal, by home isolation, and by artificial pneumothorax. The public health nurse is an essential member of the public health personnel in the fight against tuberculosis. M. E. Tennant, R.N. Amer. Jour. Nursing, June, 1943.

Original Articles

Panel Discussion

THE THYROID IN CHILDHOOD

ANTON J. CARLSON, M.D.
Chairman
CHICAGO

Dr. Carlson: A great deal of water has gone over the dam on the subject of the thyroid in childhood in the present generation. When I was a graduate student forty years ago, the spasm following great impairment of the parathyroid was called tetania parathyreopriva. At that time we did not know the relation of iodine in food and drink to simple goiter, although that was known several hundred years ago in China, and a hundred years ago in France and had been forgotten. It was rediscovered in the present generation. Also at that time we knew nothing of the probable important part played by the hormone from the pituitary gland on the thyroid, and we had scarcely touched the fundamental question of what governs the rate of hormone output from the thyroid. We have gone very far during this past generation in all these fields. I think that there are two fields that are still quite open, but maybe we will learn this afternoon that we have now clinical and laboratory tests accurate enough so that we can, in the office or in the hospital, diagnose incipient hypothyroidism. I doubt it. When it is advanced we can spot it. Secondly, I am sure we will agree at the end of the afternoon that we do not know all about the factors that control the rate of activity of the thyroid apart from iodine and the pituitary. So while we crow over our advance — and we have a right to do that — we have no reason to sit back and pat ourselves on the back and be satisfied, as we still have a long way to go.

The first paper by Dr. Margaret M. Kunde is entitled "Experimental Cretinism."

Presented before the Section on Pediatrics of the Illinois State Medical Society, Chicago, May 20, 1941.

EXPERIMENTAL CRETINISM*

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CHICAGO

An exhaustive review of the history of experimental cretinism is entirely too lengthy to fall within the time allotted to this symposium. Moreover, excellent summaries of the literature on this subject have been compiled by Swale Vincent[1]; Engelbach[2] and others. Suffice it here to note that the first extirpation of thyroids in young animals seems to have been performed by Raynard[3] (1834). Raynard removed the thyroids in old, middle-aged, and young dogs. He was unable to describe symptoms of cretinism because his young dogs died within a few days after the operation. Astley Cooper[4] (1834) it seems, therefore, published the first observations upon the effect of extirpation of thyroid in young pups. He describes the stupidity and malaise which followed. These symptoms were more accurately described by Schiff[5] (1856-1884). Following this, the literature is crowded with observations on results of thyroidectomy in young animals by such capable workers as Kocher[6], Horsley[7], Hofmeister[8], Carlson[9], Sharpey-Schafer[10], Simpson[11], Tatum[12], Kunde et al[13], and many others.

*Experimental studies referred to were carried out at the University of Chicago.

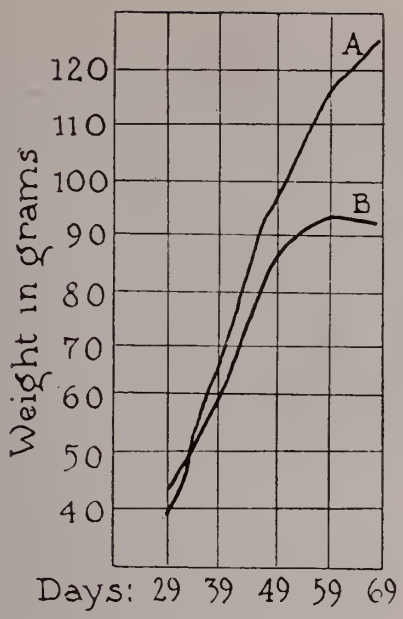


Figure 1. Showing the growth curve of 2 rats (litter mates), fed on the same diet. B was thyroidectomized at 29 days after birth (Kunde and Williams[13]).



Figure 2. Photograph of experimentally induced cretin rabbit and normal litter mate. This photograph was taken 7 months after removal of thyroid of rabbit at right (Kunde[13] research in progress).

One of the earliest and most spectacular of the effects described, following removal of the thyroid gland in the young, is the marked arrest of growth in stature. Hofmeister[8] was perhaps foremost in clearly demonstrating this phenomenon. Soon after his work, graphs, figures, and photographs published by the above mentioned investigators established and confirmed that dwarfing in growth invariably follows extirpation of the thyroid gland in young rats, rabbits, sheep, and dogs. Slide 1, Figure 1, (Kunde and Williams[13]), graphically illustrates the arrested growth in an experimentally produced cretin rat. A and B are litter-mates. Both received a nutritious and abundant diet made up of table scraps containing adequate vitamins and accessories. B was thyroidectomized 29 days after birth. At this time both animals weighed between 40 and 45 grams. It is noteworthy here to call attention to the fact that for approximately 20 days, very little interruption in growth occurred in the operated animal. After this, the growth curve approaches a plateau. Just why this latent period before growth becomes markedly arrested has never been demonstrated. Extirpation experiments indicate that both the pituitary and thyroid are necessary for growth in the young. It may be that the causative factor in this appreciable growth after removal of the thyroid is a functional interrelationship between the growth promoting substance of the pituitary and the thyroid, which persists for the duration of this period, even though the gland which fabricates the thyroid hormone has been removed. Further investigation of this phenomena needs to be made. Figure 2, Slide 2, photographically illustrates experimentally induced cretinism in the rabbit (Kunde, Photographs from experiments in progress). Note the scaling skin; thin hair; pot-belliedness; kyphosis; rachitic-like deformities and lethargic appearance of the thyroidectomized rabbit of this group. Figure 3 (1, 2 and 3) beautifully illustrates experimental cretinism in dogs. (Kunde, Photographs from experiments in progress). Figure 3, (1 shows two litter-mate pups, 11 weeks of age in their normal condition. Following this, pup B was thyroidectomized. The parathyroid glands were spared so that no demonstrable symptoms of parathyroid tetany were in evidence. (2) shows the same animals seven months after surgical removal of the thyroid of pup B. Here the cretin-like effects are clearly in evidence. Figure (3) is a close-up of this same induced cretin pup; note the aged facies, protruding tongue, pot belly, and lethargic appearance. Figure (4) (Slide 6) is a photograph of spontaneous cretinism in man, published by Du Bois[14]. I merely wish to present this here for a comparison between the gross and out-



1 2 3

Figure 3. Shows progressing stages of induced cretinism in pup. (1). Photograph of 2 pups litter mates 11 weeks old, at which time the thyroid gland was removed from one. (2). Shows the same two dogs 7 months later. (3). This is a close up of the thyroidectomized pup at the same time that picture 2 was made (Kunde, research in progress).



Figure 4. Copy of the photograph of a cretin published by Du Bois[14].

standing characteristics of cretinism in lower animals and in the species *homo sapiens.*

Hofmeister early called attention to a disturbance in the skeletal development of cretins. He showed that the posture of cretins became typical. Bones were short and muscles of the limbs too weak to support the body weight. He also noted that the skin became increasingly dry and scaly and finally edematous and that his animals developed a typical pot-belly comparable to that seen in human cretins. Hofmeister called this condition chondrodystrophia thyreopriva. Kunde and Carlson[13], investigating this condition in the rabbit, showed that the most marked rachitic-like disturbance occurred in those animals where growth curves give evidence of incomplete, rather than total removal of the thyroids. Figure 5, (slide 7) is a photograph



Figure 5. Showing bony deformaties of partially thyroidectomized rabbits (Kunde and Carlson[13]).



Figure 6. A and B are roentgenograms of littermates. A — normal animal; B — cretin 7 weeks old thyroidectomized 2 weeks after birth. Note the difference in the width of the epiphysis, E, of the normal and cretin animals, also the calcium deposits, c, at the beginning of the normal shaft, whereas in the cretin the metaphysis, M, shows very little calcium. C and D are roentgenograms taken 5 months later. Note the bending of the radius and ulna of the cretin, D, and the straight lines of the normal animal, C.

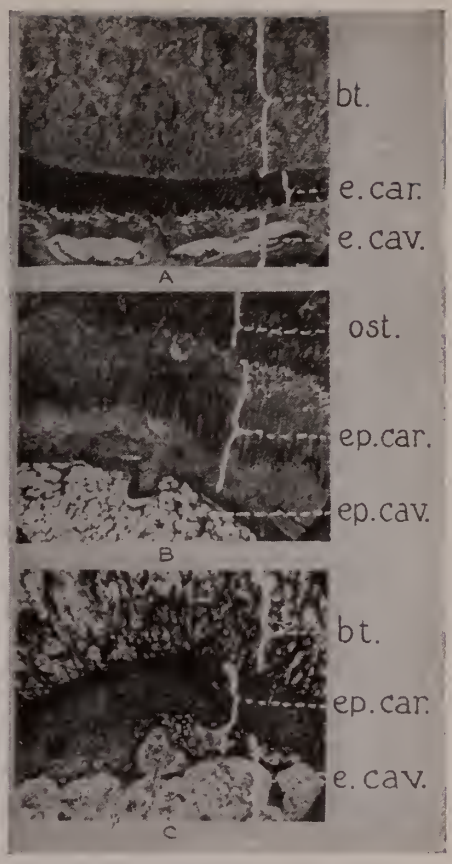


Figure 7. Histological studies through the epiphysis of experimental cretins (Kunde *et al*[13]).

of a partially thyroidectomized rabbit and its litter-mate. Growth of the cretin was approximately two-thirds that of the unoperated littermate. The epiphyseal regions of the distal ends of the long bones of the forelegs occasionally became so disturbed that that portion of the bone slipped entirely away from the rest of it so that a false joint is formed. Gross findings of these long bones indicate bowing of the forelegs, lateral displacement of the clavicles, bulging of the occipital and parietal bones, marked kyphosis, pot-belliedness accompanied by other cretinic changes such as scaling skin, shagginess of hairy coat, etc. Figure 6, (slide 8) shows roentgenograms of a foreleg of this type of cretin five weeks after thyroidectomy and again five months later. The distal ends of the radii and ulnae show widened epiphyses, translucent metaphyses, narrow zone of calcification of the epiphyseal ends of the bones and lessened density of the shaft.

Five months later, the bending of the long bones is more apparent and the epiphysis is still open. Histological sections through the epiphyseal region of such a bone (Fig. 7) presents the excessive multiplication and the large zone of proliferating cartilage cells characteristic of rickets. Kunde *et al*[13] showed that following thyroidectomy in young rats, adding antirachitic vitamin in the form of vitamin rich food stuffs to a nutritious diet does not prevent the occurrence of rickets.

Chemical analysis of the blood of these rachitic-like cretins gives evidence of a decreased acid soluble phosphorus, whereas the calcium content is normal or very slightly below that of the litter-mate, usually falling within the lower limits of normal variations of a series. Also a cholesterolemia (Kunde *et al*[13]) develops which may reach twice the normal blood cholesterol concentration. This becomes reduced to the normal value following thyroid medication.

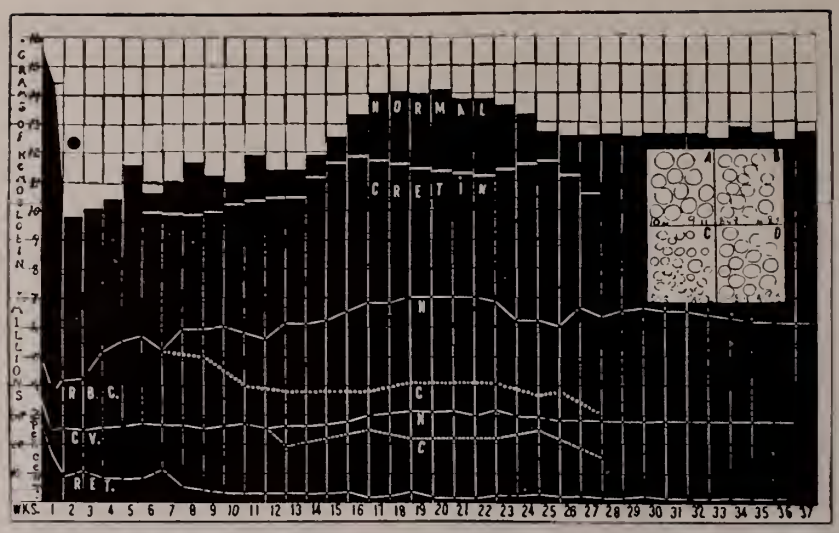


Figure 8. Graphic presentation of progressive changes occurring in the blood of normal and cretin rabbits from birth to 37 weeks of age. The horizontal columns indicate weekly intervals. The black background shows weekly changes in the hemoglobin of normal rabbits. The scale = grams Hb. per 100 cc. blood. The black dot indicates the time of thyroidectomy. The uppermost white line on the black background indicates the onset and course of deviation of the cretin hemoglobin from the normal. The scale for the red blood cells (4-5-6-6) = millions per cubic millimeter. N = normal, C = cretin. C.V. = per cent by volume of the cells in the whole blood; the scale 10-20-30 = hematocrit readings. R.E.T. = per cent reticulocytes of the red blood cells in the normal rabbits. The scale is the same as hematocrit readings. The insert (drawn to scale) indicates changes in the size of the r.b.c.; A = cells at birth, 9 to 11û. av. = 10û. B = size of cell at 7 months = 3-9û. av. 8.5û. C = cells after 4 weeks of induced hyper-thyroid, showing the small size of cells. Anemia is also present at this time, but the amount of hemoglobin contained in the cells is less than normal so that the color index is less than 1.

In these experimentally induced cretins, four to five weeks after thyroidectomy an anemia develops, characterized by a diminution in the number of red blood cells, and a decreased amount of hemoglobin. The decreased hemoglobin is correspondingly less than the diminution in the red blood cells, so that the color index is greater than 1, also the diameter of erythrocytes is greater than normal. Figure 8 (slide 9); The hydrochloric acid content of the gastric juice is normal. The volume ratio of corpuscles to plasma is less than that of the control, but somewhat greater than would be proportional to the cell count. The total blood volume seems not to be changed beyond variations in the normal animal.

The bone marrow (Kunde *et al*[13]) in these experimental cretins does not simulate either grossly or microscopically that of pernicious anemia but is rather a fatty marrow with finely granular purple-staining masses occupying the spaces between many of the fat cells. In the center of these spaces are some groups of blood-forming cells. The red cells are few in number, most of them being myelocytes and very few megaloblasts. There are few plasma cells. Some areas were suggestive of what Selling[15] (1911) found after benzol poisoning. Only a few stem cells were present and few reticular cells. Despite this, some areas in each section contained apparently normal bone marrow.

The ovary may present varying stages of development. (Tatum[12]) published cross sections through the ovaries of some cretin rabbits which indicate considerable follicular development. Figure 9 (slide 10) is a photo-micrograph through the ovary of an untreated cretin rabbit showing a large cystic area; much stroma, and

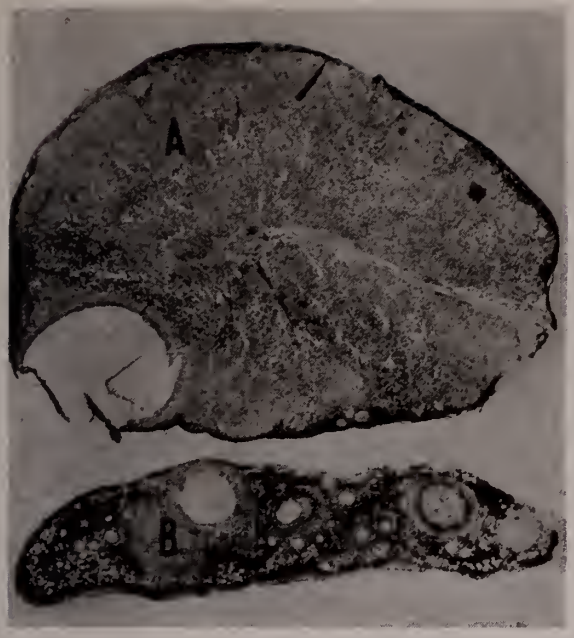


Figure 9. A. Cross section through the ovary of an untreated cretin rabbit, born March 19, 1923. Operated April 4, 1923. Autopsied March 2, 1924; body weight at autopsy 2020 grams. B. Section through the ovary of a cretin rabbit, treated with thyroid. Same age as A.

BIBLIOGRAPHY

1. Swale Vincint: Endocrinology and Metabolism, Vol. I: D. Appleton and Company, 1922.
2. William Engelbach: Endocrine Medicine, Vol. I: Charles C. Thomas, 1932.
3. Raynard. Comptes rendus des travaux de l'école royale vétérinaire de Lyon pendant l'annee scholaire, 1834-35.
4. Sir Astley Cooper, Guy's Hospital Reports, London, 1, 452, 1836.
5. I. D. Schiff, Würzburg, 1859. Centribl. f. d. med. Wissensch., 790, 1872.
6. T. Kocher: Cor. bl. f. schw. Aertzte, **8, 702, 1878**. Arch. f. klin. Chi., **29**, 254, 1883.
7. V. Horsley: Brit. Med. Journ., **1**, 111, 1885.
8. F. Hofmeister: Beitr. z. klin. Chir., **11**, 441, 1893-94. Deutsch. Med. Wschenschr., **22**, 354, 1896. Fortschr. der Röntgenstr., 1, 1897-98.
9. A. J. Carlson et al: Amer. Jour. of Physiol., **30**, 129, 1912. Ibid., 72, 548, 1925.
10. E. Sharpey-Schafer: The Endocrine Organs, London: Longman, Green and Co., 2nd Ed., V. 2, 1926.
11. S. Simpson: Proc. Soc. Exper. Biol. & Med., 20, 411, 1922. Quart. Jour. Exper. Physiol., 13, 1923.
12. A. L. Tatum: Journ. Exp. Med., **17**, 636, 1913.
13. M. M. Kunde et al: Amer. Journ. of Physiol., **82**, 630, 1927.
 Ibid **83**, 245, 1927.
 Ibid **88**, 747, 1929.
 Ibid **92**, 457, 1930.
 Ibid **95**, 626, 1930.
 Ibid **99**, 463, 1932.
 Ibid **99**, 469, 1932.
 Ibid, **103**, 1, 1933.
14. E. F. Du Bois: Arch. Int. Med., 17, 915, 1916.
15. L. Selling: Beitr. z. path. Anat. u. z. allg. Path., 51, 576, 1911.

few developing follicles (Kunde *et al*[13]). Observations made later on some of the animals in the cretin colony gave evidence of much sex stimulation in those which survived to an age well beyond maturity. These contradictory results on the ovaries must depend on varying degrees of gonad stimulating activity of the anterior pituitary at the time that the animal was sacrificed. It is conceivable that the amount of sex stimulating factor from the anterior pituitary may change as the age of the cretin advances, resulting in a corresponding change in follicle stimulation of the ovary. Reproduction in the cretin rabbit seems to depend on how completely the thyroid was extirpated. In those cretins which we considered absolute, no reproduction was noted, because they usually died seven to nine months after thyroidectomy. But in those showing evidence of appreciable growth, (indicating that a small amount of thyroid gland remained after the operation) reproduction occurred. Litters born to this type of animal were always small in number, but the young were well developed, and seemingly more mature at birth than the average new-born rabbit.

DR. Carlson: I suspect the conclusion you might draw from Dr. Kunde's paper is this: That probably no organ or tissue in the body is quite normal after complete absence of the thyroid. The animal lives, but how? Dr. Kunde forgot to mention one thing in the case of the cretin rabbits. They have to be handled more carefully than human babies, otherwise you lose them all with some kind of respiratory tract infection.

The second paper is by Howard G. Swann, Ph.D. from the University of Chicago.

PITUITARY-THYROID RELATIONS

HOWARD G. SWANN, Ph.D.
CHICAGO

This field of thyroid study is only about twelve years old. Our knowledge has come chiefly from experimental animals. Nonetheless, we have known for a long time that in Sim-

From the Department of Physiology, University of Chicago. Read before the Section on Pediatrics of the Illinois State Medical Society, Chicago May 20, 1941.

monds' disease there is a decrease in the metabolic rate, and so we have suspected that this whole relationship did exist.

Briefly, the experimental facts are these: After hypophysectomy in the experimental animal, the symptoms have many characteristics of hypothyroidism: the basal metabolic rate decreases to hypothyroid levels; growth ceases at once; the animal remains sterile for the rest of its life; amphibia never metamorphose, and so on. If the thyroid is examined after hypophysectomy, it is found to be a quiescent gland, its cells being flat rather than cuboidal. Although large amounts of thyroid colloid are present, the gland in general does appear to be quiescent. Furthermore, we find that we cannot stimulate these glands by any of the common means used to stimulate them into activity. For example, simple goiter can be produced by feeding a diet extremely low in iodine. This reaction is prevented by hypophysectomy. Another stimulus to the thyroid gland is the stimulus of cold. This produces a marked effect; in fact, putting rats into an ice box for two weeks causes their thyroids to become markedly hyperplastic. This reaction also is prevented by hypophysectomy.

This raises an interesting question: does the thyroid function at all after hypophysectomy? That is a question I can raise but not definitely answer. Opinions on it differ. In the rat, for example, if the pituitary is removed, there follows a pronounced hypothyroid metabolic rate of about minus 40. If now the thyroid is also removed, the metabolic rate does not drop any further. This indicates that the thyroid in these hypophysectomized rats is not secreting any hormone. However, when the same experiment is done on the dog, it yields different results. A combination of the two operations will cause a greater decrease in the metabolic rate than a hypophysectomy alone. This experiment is often questioned, however, because the dog is not a very trustworthy animal for use in studies of hypothyroidism. But we do feel certain that after hypophysectomy the thyroid is inactive, sluggish and possibly does not function at all.

Studies of the hormones of the anterior lobe of the pituitary gland have also proven the thyroid-pituitary relationship. The pituitary produces a hormone, called the thyrotropic hormone, which stimulates the thryoid gland. Its effect is a very rapid one. We can perceive changes in thyroid histology within 24 hours after administration of thyrotropin and we can show that these glands are stimulated at once by *in vitro* experiments. Anderson put small pieces of thyroid gland into a microrespirometer and measured their oxygen consumption. He found that if he added to the solution in which these thyroid pieces were metabolizing a small amount of thyrotropic hormone. there was an increase in the metabolic rate to twice the normal rate. The hormone causes the thyroid to consume oxygen faster at once. It has, therefore, a very rapid action; it is probably being secreted constantly, and just as you and I are constantly secreting thyroid hormone, so also we are constantly secreting thyrotropic hormone.

By administering thyrotropic hormone a typical hyperthyroidism can be produced. With it, the guinea pig's metabolic rate can be increased to plus 60 and man's metabolic rate can be increased to plus 59. The other symptoms of hyperthyroidism also follow administration of this substance: tachycardia, exophthalmos, loss of weight, sweating, amphibian metamorphosis, and so on.

The control of the pituitary over the thyroid is abundantly demonstrated experimentally, and it raises at once a very interesting question: Are thyroid diseases due secondarily to pituitary dysfunctions? Myxedema, for example, is due first, certainly, to the deficient secretion of thyroid hormone, but back of that, is the trouble a deficient secretion of the pituitary hormone? And is the same true of Graves' disease? Is the thyroid at fault and that the only thing, or is the pituitary driving the thyroid to secrete too much thyroid hormone with a resultant hyperthyroidism. Opinions on this very interesting question are varied. One group of investigators who have done considerable work on it believe that both kinds of condition exist. What they call thyrogenic myxedema is due primarily to the thyroid and that, rather than the pituitary, is the organ at fault. Among these cases they particularly include those with classical myxedema; in such, there appears to be virtually no thyroid secretion, with a metabolic rate down to minus 30 or 40. Significantly, it is found that these cases will not respond to thyrotropic hormone. It is thought that in such cases there is

a complete absence of thyroid tissue or else that the thyroid is so degenerated that it cannot respond to pituitary hormone. In a second type of case it is thought that the pituitary is at fault. These are cases of milder myxedema. The thyrotropic hormone will act in them as it does in the normal individual and will prevent the condition.

Is this information of any service to the clinician. I am inclined to think not, for the reason that our preparations of thyrotropic hormone are still often poor and irregular and even risky. This report, then, that I have just made is in the nature of an experimental report and not a report leading to a new and more satisfactory therapy. Thyroid therapy is so easy and so clear cut that before we change from it we should certainly have a better treatment. The present preparations of thyrotropic hormone do not fit this qualification.

Now, turning to the child, the same considerations must be given hypothyroidism in the child as in the adult. In certain cases that we know of very well there is congenital absence of the thyroid gland. The cretinism occurring in those cases is due primarily and entirely to the absence of thyroid tissue. These cases are probably rare. Most cretins have small quantities of thyroid tissue left or, for that matter, relatively normal quantities which do not appear to secrete sufficient thyroid hormone. Is the deficiency in such cases due to deficient secretion of the thyroid-stimulating hormone of the pituitary or is it due simply and only to deficient secretion of the thyroid hormone itself? Again, I can raise the question but I am unable to answer it finally.

I want to turn back now to consider some of the defects in growth that Dr. Kunde has described as occurring in cretinism and to examine what we know about the cause of these conditions. You recall that after either thyroidectomy or hypophysectomy there is a cessation in growth. This cessation in growth after thyroidectomy takes a certain amount of time to be apparent, approximately a week or two in the rat. The cessation of growth in the hypophysectomized animal is instantaneous. What is the trouble in these two conditions? Is the essential defect the same in both cases? Or are there two growth defects involved, one defective because the thyroid is in hypofunction and the other defective because the pituitary is in hypofunction?

Experimental work here furnishes interesting clews. Philip Smith, one of the most brilliant scientists we have in this country — the man who really opened wide this tremendous book of pituitary physiology — has used the thyroidectomized and hypophysectomized rat in order to determine the relation of the two glands to growth. He found that by administering various pituitary extracts he could obtain some growth in such preparations. On the other hand, thyroid hormone alone had no effect on their growth at all. It is also known that pituitary extracts will cause some growth in the cretin. Setting these facts together, it appears that the defective growth of the cretin is due to defective secretion by its pituitary. The cretin's sterility is also probably due to a deficient pituitary secretion. The proof of these hypotheses is, however, not yet rigidly clear because Smith also found that better growth in the doubly operated rats was obtained by combining both pituitary and thyroid hormones.

This leads to the conclusion that Dr. Carlson has drawn: namely, that we cannot consider one of these hormones as acting, so to speak, in a vacuum. If one gland is removed, the entire endocrine system probably changes. And the whole endocrine system is unquestionably as widely integrated as the central nervous system.

One aspect of thyroid physiology only recently discovered is the influence of this gland on absorption. After its removal, absorption of all foods stuffs is sluggish and probably incomplete. The cretin, I suspect, is a very poorly nourished animal; a great deal of its defective growth may be due to this factor alone.

Mildly deficient growth in children is, of course, very common. What may the clinician guess as to its etiology — pituitary? thyroid? malnutrition? We need technics for measuring levels of pituitary and thyroid hormones in the blood. In the case of both of them, very promising starts have been made, but as yet the technics are so difficult and so often yield controversial results that they are not of great use. The answer to the whole problem of deficiency in growth is a huge one, with countless facets. We

can look forward to solving it by work from clinicians and experimentalists alike.

Dr. Carlson: Observing animals and not knowing much about children, my impression is that the pure cretin is more stupid than the animal stunted in growth by hypophysectomy.

Next we have a paper by Dr. Helmut P. Seckel of the Department of Pediatrics, University of Chicago, on "Growth and Development in Graves' Disease: With Report of a Puerile Case Associated with an Unverified (Thyrotropic) Pituitary Adenoma."

GROWTH AND DEVELOPMENT IN GRAVE'S DISEASE

With Report of a Puerile Case Associated with an Unverified Thyrotropic Pituitary Adenoma

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It is only in a limited number of points that hyperthyroidism of childhood is distinguished from the same disease in the adult. One of them concerns the pathology of the thyroid. In children, it is exclusively characterized by a diffuse parenchymatous hypertrophy and hyperplasia of the gland, with associated adenomatous portions occurring in part of the cases. What is known in adult pathology as "toxic adenoma" of the thyroid is unknown in childhood. It is true, thyroid adenomas, and even carcinomas, do occur before adolescence but they never have been reported at this age to be associated with hyperthyroidism.

The clinical picture and diagnosis of Grave's disease of childhood do not materially differ from the well-known symptomatology of adult age. In various leading hospitals in the country, from 55 to 85 per cent of the children have been operated upon, while the rest were submitted to medical therapy. In the case of operation, preoperative Plummer's treatment was given for about two weeks, consisting in the daily administration of 5 to 10 drops of the compound solution of iodine, USP. The standard operation followed was bilateral subtotal thyroidectomy, performed in one stage under general anesthesia. After operation, iodine administration was gradually discontinued. The fatality rate of the operation in children has been between 2.5 and 5 per cent. Medical treatment required bed rest, high caloric diet, sedatives, and iodine administration.

Three points in the clinical picture of child hyperthyroidism particularly attract the pediatrician's attention. They are, (1) the age distribution during childhood, (2) the influence on skeletal growth, and (3) the effect on sexual development. In a fourth section, an unusual case of puerile Grave's disease associated with an unverified pituitary adenoma will be reported.

(1) *Age distribution during childhood.* In the individual experience of the average pediatrician hyperthyroidism is a rare disease. Thus, in studying statistical problems of Grave's disease in childhood, we turn from individual to collective experience. Such may be obtained from two sources of information. One consists in a collection of individual case reports as they have appeared in the world literature. The other is furnished by statistical surveys of large series of cases as they were collected in the leading hospitals for children. The body of this material is listed below:

Atkinson (England, 1938; world literature, 1851 to 1937)	208 Cases
Green and Mora (Chicago, 1931)	26 Cases
Dinsmore (Cleveland, 1932)	57 Cases
Cattell (Boston, 1933)	52 Cases
Bloom (New Orleans, 1935)	40 Cases
Bram (Philadelphia, 1937)	128 Cases
Kennedy (Mayo Clinic, Rochester, Minn., 1940)	171 Cases
Reilly (San Francisco, 1940)	62 Cases

The sum total of this material is about 750 cases. The figure does not include individual case reports published in the literature later than 1937.

The number of children among all cases of Grave's disease irrespective of age is estimated by the above observers at between 1 and 2.5 per cent. Within the age group below 15 years, only 20 to 30 per cent of the childhood cases start out below the age of 10 years, and the onset of hyperthyroidism at or below 5 years is almost a medical curiosity in both sexes. In the latter age

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group we find only 7 to 8 per cent of all clinical cases; the higher figure of about 25 per cent in Atkinson's literary series seems to indicate the greater interest in the youngest age group of those observers who deemed it worthwhile to publish their cases. Three quarters of all cases of Grave's disease in children arise at pre-puberity and puberity age. Seven girls are counted on each boy. Thus puberty age and the female sex appear to be predisposing etiological factors in hyperthyroidism of childhood. Not infrequently, heredofamiliarity is also demonstrable in such cases.

For the sake of illustration, a few of the rare instances of hyperthyroidism with onset at or before the age of 5 years may be briefly itemized. There are 54 cases of this kind in Atkinson's collection, 7 of which were less than one year of age at the time of observation. A unique case was published by White, in 1912, under the title, "Congenital Hereditary Grave's Disease". Since the fifth month of her first pregnancy, a young mother developed an increasingly severe hyperthyroidism. The fetal heart rate was well over 200 before delivery. A premature boy was born in whom, besides tachycardia, a loud heart murmur, an exophthalmic stare, and a fine tremor of the hands was present. He died after 36 hours, and at autopsy a very large thyroid with an accessory gland was found. The pituitary, thymus, pancreas, and adrenal glands were normal both, grossly and microscopically. The mother's hyperthyroidism improved after delivery and again became worse during her next (unsuccessful) pregnancy. Ochsner and Thompson, in 1910, have mentioned an observation of Schmauch's which seems very much like that of White's. However, the newborn boy's pulse rate and thyroid were not described, and when his exophthalmos was noticed at the age of 5 weeks, it might have been explained on the basis of his turret head and premature birth; it was still present at the age of 27 months. A premature baby born of a mother with exophthalmic goiter was also described by Faber in 1923. The newborn had a marked exophthalmos, very rapid pulse, great irritability and a high food requirement. As his symptoms spontaneously disappeared within 4 weeks, a diaplacental transmission of thyrotoxicosis from the mother to the fetus seems to offer the best explanation of the case.

An infantile case of hyperthyroidism was described with autopsy by Braid and Neale in 1930. The girl's symptoms had first appeared following bilateral pneumonia at the age of 1 year, and were severely aggravated after measles at 2½ years. Besides the classical symptoms, a 0.12 per cent glycosuria was once observed. Iodine treatment was ineffective. At 2¾ years of age, a right thyroid lobectomy was performed with a fatal outcome at the close of the operation. At necropsy, the remaining thyroid was uniformly enlarged and, like the operative specimen, showed diffuse hyperplasia of the glandular tissue. The thymus was also grossly hyperplastic and weighed 96 instead of a normal 20 gm. Simple hyperplasia of the lymphatic nodules and spleen were also observed. The pituitary and adrenals were normal. The heart was somewhat hypertrophied but histologically normal. Finally, two observations may be mentioned for their long follow-up and impressive illustrations. One of them was published by Dreschfeld in 1898. He presented photographs of a girl before the onset of Grave's disease, (at one year of age), on the peak of the disease at 3½ years of age, and after spontaneous regression of almost all symptoms at 7 years of age. The other observation of this type is that of Patterson's, published in two papers in 1930 and 1935. The exophthalmos is very well seen in a photograph taken at the age of 4 months and is still in evidence at the age of 8 and 14 years, during which period the girl's hyperthyroidism had become more active. No attempt at operative treatment had been made in this case.

(2) *Influence on skeletal growth.* In cretinism and myxedema of childhood, stunted growth in height and retardation of bone development are well-known characteristics. To take an x-ray of the child's wrist and hand is a matter of routine in this condition. By way of contrast, in hyperthyroidism of childhood, one should expect an acceleration of growth in height and skeletal development. This also was hinted at by experiments in young animals fed with thyroid gland. If the world's casuistics of hyperthyroidism in children is checked for this point, one is surprised to find no statement of body height in more than two-thirds of all cases. Similarly, x-ray sudies of the growing centers of the bones appear, for unknown psycholgical reasons, to be-

long to the diagnostic subtleties of child hyperthyroidism. Only occasional papers are specifically concerned with this subject, and remarks in the leading textbooks are also few in number. For instance, Kennedy, in 1940, in his comprehensive article in Brennemann's Practice of Pediatrics, based on 157 cases of the Mayo Clinic, does not even touch upon the problem of growth and development in hyperthyroidism of childhood. Between 1924 and 1936, three papers on osseous development in endocrine disorders were published, in which hyperthyroidism either was not mentioned at all or mere possibilities were speculated upon. The net result of specific investigations of this matter seems to be that skeletal growth is often accelerated in children and adolescents with Grave's disease.

With respect to development of body height, Holmgren, as early as 1909, collected 80 cases of hyperthyroidism of his own observation. He divided them into two groups, one containing 42 cases 12 to 21 years of age, the other 38 cases 22 years of age and over. Thirty-seven cases of Grave's disease below the age of 20 years were included from the literature and 13 controls of non-toxic goiter were also analyzed. Around 80 per cent of the thyrotoxic cases below 20 years were definitely oversize for their age, the average being +5 cm. in the girls and +9.9 cm. in the boys, with maximum heights of 178 and 195 respectively. Some patients were veritable giants, with occasional acromegaloid features. Holmgren came to the conclusion that, when hyperthyroidism set in during the period of body growth up to the age of 21 years, the overwhelming majority of the patients were clearly oversize. However, average height was attained in thyrotoxic cases of 22 years of age and over, and in cases of nontoxic goiter of all age groups.

General statements about acceleration of growth in height in children with Grave's disease of some duration are found in later publications by Cattell (1933), Reilly (1934), Bram (1937), and in a few textbooks. Welti (1937, 1938) published scatter diagrams of body heights of 11 girls and 4 boys with hyperthyroidism; 9 girls and all boys were definitely oversize. The same was true of 36 children in Reilly's series of 44 (1940); he noted rapid statural growth shortly before toxicity became apparent, particularly before puberty age. Another scatter diagram of body heights in young patients with hyperthyroidism was presented by Kennedy (1940), shortly after the publication of his textbook article. Of 14 girls, who had been operated upon before the age of 15 years and were less than 18 years at the time of measurement, 9 were oversize and 5 a little below average for age; all former childhood patients who were measured after the age of 18 years had an average height normal for females of their age. "Children with exophthalmic goiter apparently grow more rapidly than socalled normal children, but their heights ultimately are not greater than or less than average height."

In individual case reports statements of body height are usually missing. Atkinson, in his list of 208 childhood cases from the literature, does not even tabulate the size of the children. Occasionally, however, data are available and seem to indicate excessive statural growth. Holmgren (1909) mentioned a 6 year old physician's daughter with Grave's disease who grew 9½ cm. within 10 months. Also, in Klapper's case (1939), the boy grew from a subnormal 90 cm. to 107.5 cm. during the year preceding operation; at 5½ years he was thyroidectomized and the following year he gained only 8.5 cm. in height. Welti also speaks of postoperative normalization of growth rate.

X-ray studies of bone development in children with Grave's disease were reported for the first time by Holmgren in 1906. In 7 of 9 youngsters aged 13 to 18 years a complete or almost complete premature closure of the epiphyseal lines of the hand skeleton was seen, while the growing zones were still open in the remaining two cases. Abnormally early appearance of ossification centers of the bones with corresponding increase in bone age was mentioned by Cattell (1933) and described in individual cases of child hyperthyroidism by Billmann (1935), Wallis (1935), Crile and Blanton (1937), and Welti (1937, 1938). The chronological age of these children was 2½ to 7 years and their bone age, as judged from the ossification centers of the wrist, was between 5 and 11 years; all these children were also considerably oversize. Welti further presented an x-ray of a knee joint with closed epiphyseal lines in a girl, aged 14 years, with hyperthyroidism, and said he had made similar observations in other cases. He warned that body growth may be completely arrested after thyroidectomy in such children and that it was

wise to take preoperative bone x-rays in order to prove the case. Reilly also reported bone ages of 16 to 18 years in girls aged 13 to 14. The skeletal changes seem all the more pronounced the younger the child, the severer the thyreotoxicosis, and the longer the duration of the disease.

Cattell, Welti, and Reilly further noticed decreased density of bones, zones of decalcification, and osteoporosis in skeletal x-rays of children with Grave's disease. Reilly found negative calcium and phosphorus balances in three osteoporotic cases with a normal distribution of urinary and intestinal excretion of calcium. This effect of thyroxine is well known from animal experimentation.

Advanced dental development was recorded by Crile and Blanton, Welti, Reilly and others. Welti's 5 year old girl had lost all her deciduous teeth at the age of 3½ years and at 5 years had a tooth age of 10.

(3) *Effect on sexual development.* This aspect of child hyperthyroidism has been studied very rarely, and even Holmgren (1909), in his lengthy paper, failed to discuss it. However, he reported menstrual histories in 78 of his own observations which I have analyzed as follows. In 57 of the cases, or 73 per cent, menstruation started at 15 years or under, down to 12 years, in one case even at the age of 9 years; in 21 cases, or 27 per cent, the onset of menstruation was between 16 and 22 years of age. From his study of 208 literature cases, Atkinson came to the conclusion that "the onset of menstruation is often delayed". The same was found by Welti in girls aged 14 to 17; menstruations started late or became irregular and scant to the extent of frank amenorrhea. Following thyroidectomy, "in three girls not yet menstruated the periods have made their appearance and in the other eight girls they were again normalized". In two boys with small testicles and no sexual hair at the age of 12 years, "following thyroidectomy sexual hair appeared in a few months and the testicles rapidly increased in size; in one of the boys an undescended testicle came down into the scrotum". The only boy studied in Reilly's series showed a retarded sexual maturation. Of his 31 girls with hyperthyroidism, 15 had normal menstruations during toxicity and 17 abnormal ones; in 4 cases the periods failed to appear, in another 4 they were scanty, and in 9 cases amenorrhea developed during toxicity. Secondary sexual characteristics often failed to develop, or developed slowly during hyperthyroidism; 2 cases were described as eunuchoidism.

Lehman (1936) is the only author who reported a Grave's disease with a noticeable hypertrophy of the breasts in a girl aged 4 years. He wrote, "Physical overdevelopment as well as precocious sexual development is not uncommon" in hyperthyroidism.

The conflicting experiences of the various clinicians were reflected in an experimental paper by da Costa and Carlson (1931). They found "that desiccated thyroid in large doses retarded sexual maturation of white rats of both sexes while small doses of thyroid tended to accelerate it".

Similar inconsistencies as to sexual development were recorded in patients with hypothyroidism. The usual effect seems to be severe retardation. However, Reilly wrote in 1934, "A somewhat early onset of menses is a not uncommon characteristic of childhood myxedema." A unique observation was published by Kendle in 1905. A cretin girl, younger sister of a cretin boy, had been treated with thyroid up to the age of 3 years. Then medication was gradually stopped. At 5 years of age, the girl began to menstruate, to grow axillary and pubic hair, and to develop full mammae with prominent nipples and hair on the areolae. Under renewed thyroid therapy given at the age of 8, almost all abnormal stigmata disappeared within 9 months and she reverted to a more child-like type of hypothyroid dwarf.

CASE REPORT

An almost unprecedented case of severe Grave's disease associated with an unverified pituitary adenoma has been observed since 1938 in the Bobs Roberts Hospital for Children of the University of Chicago. I am indebted to Dr. Douglas N. Buchanan for permitting me to make use of his neurologic studies of the case.

J. N. W., No. 206073, a white boy aged 7 years, was admitted to the hospital on September 22, 1938. He was born on August 5, 1931, as the second youngest of 6 children of rather old parents. The father had a peptic ulcer for about a year. The boy's personal history as to birth, growth, development and previous illnesses was essentially negative. In the present history there was headache, vomiting and impairment of vision for one year's duration. During this time, the parents also noticed a swelling about his neck, protrusion of the eyes, general nervousness and easy fa-



Figure 1. J.N.W., a boy aged 7 years. Grave's disease associated with presumable pituitary adenoma. Note extreme exophthalmos, empty look of the blind, excessive perspiration and moderate hypertrichosis. Photo taken on Sept. 26, 1938.

tigability. A diagnosis of goiter was made, and he had been taking medicine until two weeks before admission.

On examination, the boy presented a spectacular picture of Grave's disease, and at the same time all the signs and symptoms of an intracranial neoplasm pressing on the optic chiasm were present. He was 6 cm. oversize for his age (126 cm.) and greatly emaciated, with an underweight of 5 kg. (17 kg.). He was exceedingly weak, very irritable, emotionally unstable and apparently of normal intelligence. Anteriorly on the neck there was a firm nodular goiter measuring 6 x 7 cm. over which a bruit was heard. The voice was rough and frequent coughing spells were observed. On account of an extreme exophthalmos the boy's face had a ghastly expression and in addition there was the empty look of the blind (Figure 1). There was also visible perspiration in his face and a certain degree of hypertrichosis about his head; however, his sexual development was normal for his age. His pulse rate at times was as high as 160, the blood pressure 158/72 mm. Hg, the heart slightly enlarged to x-ray, and the B.M.R. plus 34 per cent. There was an almost complete amaurosis and primary optic atrophy. Besides a slight tremor of the fingers and tongue, extreme muscular hypotonia, reduced deep reflexes, and a bilateral positive Babinski's sign, no significant neurological findings were observed. Macewen's sign was absent. With the exception of a slightly enlarged spleen and severe dental caries the clinical findings were negative otherwise. Urine, blood picture, glucose tolerance test, blood N.P.N., and blood cholesterol were normal. On x-ray examination of the skull the sutures were united and the sella turcica was grossly enlarged with erosion of the posterior clinoid processes and excavation beneath the anterior processes (Figure 2). No abnormal calcification was seen. On encephalography, the intra- and suprasellar tumor seemed to project backward and distort the third ventricle.

A clinical diagnosis of severe Grave's disease associated with an intra- and suprasellar tumor was made. It was thought the tumor may be either in the nature of a glioma of the optic chiasm or, more probably, of an adenoma of the anterior pituitary lobe.

TABLE 1.
Body Weight and B.M.R. of J.N.W., boy aged 7 yrs.

Date	Body Weight, Kgm	B.M.R. Per Cent	Remarks
9-24-1938		+ 34	Plummer therapy
9-27-	16.0		from 9-22 to
9-30		+ 15	10-6-1938.
10- 1	15.7		
10- 7			Thyroidectomy
10-18	17.8		
10-25	19.5		
10-28		— 20	
11- 1	20.5		
11- 8	21.5		
11-15	22.6		
11-30	25.0		
12- 2		— 29	
12- 6	25.0		
12-12	25.1		
1-10-1939	27.4		

After two weeks' Plummer's treatment, seven eighths of the goiter were resected by Dr. L. R. Dragstedt. The operative specimen weighed 32 gm. and presented the histological picture of parenchymatous hyperplasia. The postoperative course was comparatively uneventful. The effect of the iodine treatment and thyroidectomy on B.M.R. and body weight is shown in table 1. In the course of 2½ months the B.M.R. dropped from plus 34 to minus 29 per cent and the body weight rose from 15.7 kg. to 27.4 kg. At the same time the pulse rate came down to 80 to 100 and the blood pressure to 120/80 mm. Hg. No signs of myxedema were observed. Blindness was now complete, and headaches, occasional vomiting and horseness of voice persisted. Post-operative x-ray therapy of the region of the sella was entirely ineffective. The boy was sent to a school for the blind where he is living at present.

In a search of the literature it was found that the first example of a basophilic adenoma of the anterior pituitary gland ever described in a necropsy had been clinically associated with Grave's disease in a women 40 years of age (Erdheim, 1910). The only other observation to be compared with our own case was reported by Peters in 1934 under the title, "Pituitary tumor and thyrotropic hormone". The presence in a girl 3 to 8 years of age of a definite Grave's disease and a slowly developing intrasellar tumor with de-



Figure 2. Same patient as Fig. 1. Grossly enlarged sella turcica with deformation of clinoid processes. X-ray taken on Sept. 29, 1938.

struction of the sella and progressive loss of vision was identical with the findings in our case; no autopsy was obtained in Peters' patient, either. However, in her case the symptoms of hyperthyroidism were milder and subsided spontaneously as the pituitary tumor became progressively larger.

Whether the association of Grave's disease with a pituitary adenoma 1.5 mm. in diameter as described in Erdheim's case was in the nature of a pure coincidence or of an etiologic relationship it is hard to tell today. However, in Peters' and our own case a coincidence seems to be out of the question. We feel justified in asserting the hypothesis that in these two cases a primary adenoma of the anterior pituitary gland, by overproducing the thyrotropic hormone, had brought about secondary hyperthyroidism of Grave's disease. Such an adenoma may well be termed "thyrotropic adenoma" of the anterior pituitary. Whether it would have originated from the basophilic or eosinophilic cells of the gland it seems idle to speculate upon, since both appear to have to do with the manufacture of the thyrotropic hormone. Anterior pituitary hormones other than the thyrotropine, e. g. growth hormone or gonadotropines, apparently were not oversecreted in the two cases, unless one would explain the mild hypertrichosis in our boy as the result of adreno-corticotropic secretion.

After the thyrotropine of the anterior pituitary had been discovered, it was time and again suggested that ordinary cases of Grave's disease might be due to an overproduction of that hormone. Some observations indirectly supporting this theory may be listed: (1) Grave's disease preferably starts, or is aggravated, during physiologic growth spurts such as (pre-) puberty or pregnancy, i. e., during periods of overproduction of the growth hormone and other pituitary hormones (Reilly); (2) gigantism and acromegaloid features were repeatedly described in juvenile hyperthyroidism (Holmgren; Reilly); (3) in about 50 per cent of all cases of acromegaly some degree of hyperthyroidism, often frank Grave's disease, is known to be present (Cushing and Davidoff; Davis); (4) the abnormal presence of thyrotropine in the urine was demonstrated in a small percentage of cases of adult hyperthyroidism (Cope: in 2 out of 17 patients examined). In reviewing this subject Cope wrote in conclusion: "Although the hypothesis that Grave's disease is due to an over-production of thyrotropic hormone by the pituitary is a tantalizingly attractive one, yet conclusive evidence supporting such a hypothesis has remained persistently lacking." The case here reported, in conjunction with a similar observation in the literature, seems to give at least presumptive, if not conclusive evidence to support the view that the hypothesis in question is well-grounded on facts in a few selected cases of Grave's disease.

SUMMARY

Hyperthyroidism is a rare disease in children, especially below the age of 5, or even 10 years, and in the male sex. The study of growth and development of such children has been grossly neglected in the literature. From the little that is known it may be concluded that growth in height is often accelerated before the age of 21 years, that ossification centers of the bones may appear in advance of age in younger children, and that closure of epiphyseal lines may be premature in older children and adolescents. Sexual development seems as a rule to be retarded in both sexes, but observations to the contrary are also on record.

A rare case of Grave's disease, associated with a presumable adenoma of the anterior pituitary lobe, is described in a 7 year old boy. It is suggested that in this case hyperthyroidism was brought about indirectly by oversecretion of the thyrotropic hormone on the part of an endocrine tumor of the anterior pituitary. One similar case was found in the world literature, in a girl observed from 3 to 8 years of age.

BIBLIOGRAPHY

Atkinson, F. R. B., Brit. Journ. Child. Dis. **35**, 165; 267, 1938.
Billmann, G. Hospitalstid. **78**, 238, 1935.
Bloom, C. F. South. Med. J. **28**, 1123, 1935.
Braid, F. and Neale, A. V. Arch. Dis. Childh. **5**, 229, 1930.
Bram, I. Arch. Pediatr. **54**, 419, 1937.
Cattell, R. B. Trans. Amer. Assoc. Study of Goiter, 1933, 239.
Cope, C. L. Quart. J. Med. **31**, 151, 1938.
Crile, G. Jr. and Blanton, J. L. Amer. J. Dis. Child. **53**, 1039, 1937.
Cushing, H. and Davidoff, L. M. Monogr. Rockefeller Inst. Med. Res. **22**, 1, 1927.
Da Costa, E. and Carlson, A. J. Amer. J. Phys. **104**, 247, 1931.
Davis, A. C. J. Clin. Enocr. **1**, 445, 1941.
Dinsmore, R. S. Surg., Gyn., Obst. **42**, 172, 1926; J.A.M.A. **99**, 636, 1932.
Dreschfeld, J. Practitioner **57**, 135, 1896.
Erdheim, J. Frankf. Zeitschr. f. Pathol. **4**, 70, 1910.
Faber, H. K. Trans. Amer. Ped. Soc. **35**, 341, 1923.

Green, E. J. and Mora, J. M. Surg., Gyn., Obst. 53, 375, 1931.
Holmgren, I. Fortschr. d. Med. 24, 133, 1906.
Holmgren, I. Nord. Med. Arkiv. (Sect. II, Inre Med.) 42, 1, 1909.
Kendle, F. W. Brit. Med. Journ. 1, 246, 1905.
Kennedy, R. L. J. The thyroid gland. In Brennemann, J., Practice of Pediatrics, Hagerstown, Md., W. F. Prior Co., Inc. 1940.
Kennedy, R. L. J. Amer. J. Dis. Child. 60, 677, 1940.
Klapper, H. New Internat. Clin. 2, 234, 1939.
Lehman, J. A. West. Journ. Surg. 44, 528, 1936.
Ochsner, A. J. and Thompson, R. L. The surgery and pathology of the thyroid and parathyroid glands. London, 1910, p. 192.
Patterson, D. and Gallant, I. W. Proc. Roy. Soc. Med. 24, 569, 1930.
Patterson, D. and Ellis, R. W. B. Proc. Roy. Soc. Med. 28, 832, 1935.
Peters, C. Zeitschr. f. Kinderheilk. 56, 14, 1934.
Reilly, W. A. Endocrinology 18, 117, 1934.
Reilly, W. A. Amer. J. Dis. Child. 60, 79, 1940.
Wallis, K. Monatsschr. f. Kinderheilk. 61, 161, 1935.
Welti, H. Mém. Acad. Chir. 63, 1229, 1937.
Welti, H. Trans. Third Internat. Goiter Conf. and Amer. Assoc. Study of Goiter, 1938, 101.
White, C. J. Obst. Gyn. Brit. Emp. 21, 231, 1912.

Dr. Carlson: We shall next hear from Dr. I. Pat Bronstein.

THE DIAGNOSIS AND PROGNOSIS OF THYROID DEFICIENCY IN CHILDHOOD

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The prognosis of the thyroid deficient child is dependent largely upon the mental and physical development and these rest entirely upon the earliest possible diagnosis, especially so the former. One may challenge the value of thyroid therapy unless ultimate adjustment of these children can be accomplished.

In choosing to discuss these aspects I am prompted by two considerations: First, to point out some diagnostic aids which I believe, though limited in usage, have been responsible for stimulating greater interest in the earlier recognition of thyroid deficient children, particularly under the first year, allowing therapy at a time when greatest success can be achieved. I recognize that the untreated thyroid deficient child who exhibits lack of statural growth with retardation of dentition, sitting, walking and talking, slow mental development and a subnormal body temperature is not a difficult diagnostic problem. Secondly, the opportunity to make coordinated clinical observations over a prolonged period of time in a considerable number of patients has provided accumulated information.

It is unfortunate that time will not permit a discussion of the interrelationships of the thyroid to the other endocrine glands, an understanding of which emphasizes the principle of endocrine balance and integrated hormonal effects and, furthermore, modifies the conception of pure thyroid disease. As early as 1851 it was noted that the pituitary of a goitrous cretin may attain a weight four times the normal. I have often felt that when a cretin is recognized early (and treated effectively) one has a fairly good picture of what is perhaps a simple glandular involvement and such a patient followed for a long period exhibits no symptoms either of thyroid or other endocrine involvement. Thyroid administration corrects both the pituitary and I presume, any unascertainable abnormalities that exist in the other endocrine glands.

Before proceeding to a brief discussion of some of the adjuncts employed in the diagnosis of thyroid deficiency I will enumerate three problems which merit consideration: (1). The question of hypothyroidism with inhibition of growth following thyroidectomy in hyperthyroid children. There has been a number of recent publications of large series. I have had occasion to follow a few such children through puberty and observed no hypothyroidism or interference with growth.

(2). Children who exhibit increased metabolism during adolescence with subsequent exhaustion and reduction in thyroid activity and the development of a goitre which often disappears spontaneously, may be helped by small doses of thyroid extract.

(3). The markedly understatured child, who by thorough study and exclusion is presumed to be a pituitary dwarf exhibiting lowered basal metabolism and delay in carpal development, has interested me. Thyroid administration has been of little value. The interpretation of these two evidences of usually accepted lowered metabolism is problematical.

In discussing reduced metabolism, evidences of which may be alterations in (a) basal rate, (b) blood cholesterol, (c) urinary creatine, (d) blood iodine, and (e) delay in osseous development, epiphyseal closure and dysgenesis, I will not be

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able to review much of the excellent past work but only refer to some of the more recent investigations.

As I followed thyroid deficient children from month to month it became apparent that basal metabolism as ordinarily determined was unreliable because of the lack of cooperation which occurred even in the older patients due to limited mental capacity. Over a period of years I was able to make satisfactory tests in a limited number of cases. Basal metabolism, although a valuable test, is not specific nor should it be a principle guide. Hypometabolism is not necessarily synonymous with hypothyroidism. I need only to call your attention to the obese children in whom on the basis of lowered basal rates socalled borderline thyroid deficiency was diagnosed. In a considerable experience with the usually encountered adiposity there was little other evidence to presume such a diagnosis.

In cretinism we have the additional difficulty of applying normal standards to abnormal physically developed patients. In the present state of knowledge I believe it advisable to make comparison to all standards until far more data are available. One can obtain any basal metabolic rate depending upon whether surface area, height or weight is referred to. The use of urinary preformed creatinine as a criterion for estimating basal metabolism has been questioned.

It is my opinion that the relative changes in the basal rate are more significant than the actual numerical value and that the various readings are peculiar to the individual child. Furthermore, the basal rate determinations proved unsatisfactory since small doses of thyroid extract caused sharp rises leading to an incorrect diagnosis of hyperthyroidism with discontinuance of and interrupted therapy.

The limitation of basal metabolism gave rise to a search for additional indicators of metabolic activity in children. Blood cholesterol offered possibilities in diagnosis and regulation of thyroid dosage inasmuch as the mechanism regulating its metabolism was obscure.

Originally I found the average level of cholesteral 190+ in a number of normal children and an hypercholesteremia in the hypothyroid group. When thyroid therapy was discontinued in thyroid deficient patients the level of cholesterol was augmented. Wilkins recently emphasized the latter point especially in cretins whose clinical signs had disappeared as a result of prolonged therapy.

Chemical methods and the relative values of total blood, serum or plasma cholesterol as well as the significance of the fractions are matters of importance still open to question. A series of total and free cholesterol determinations were made on the whole blood, serum and plasma of a cretin before and after thyroid therapy. There was a significant difference between the values before and after treatment, therefore, each series was considered separately for a statistical analysis.* The total cholesterol values made on whole blood, plasma and serum did not differ significantly from each other. The method of determination did not matter in these results. The range of the free cholesterol was 14 — 55 percent of the total; the average was 32 percent. There did not appear to be any reversal of this ratio before or after treatment. Recently Radwin found that the free serum cholesterol in hypothyroidism before and after therapy was essentially the same as in normal children. He further states that the concentration of total cholesterol, although elevated in most untreated patients with hypothyroidism, may be within normal limits and that total serum lipids are a more valuable diagnostic agent. I have on a number of occasions found normal values for cholesterol in hypothyroid children, especially in infants, eight of whom were recognized well under one year.

A very recent publication by Tobias and Stockford concludes that the level of total cholesterol is a most valid measure of reduced metabolic speed in children and they suggest it as a feasible measure routinely in all newborns and adolescents. From my knowledge of cholesterol fluctuations and its other limitations I cannot share this view of Tobias and Stockford. They emphasize the simplicity of cholesterol determinations and its not being affected by food intake. Other investigators have found that cholesterol is little affected by sex, nutrition and even fat or sterol content of the diet.

In the literature it is usually stated that normally creatine is not found in the urine of the male adult, although there are some controversial reports. Small amounts are excreted periodically

*Mildred Norval, M.S. made the statistical analysis.

in the urine of the adult normal female due to sex hormone influence. In infants and children creatine is physiologic in both sexes and may continue in decreased amounts beyond adolescence. Levine found that prematures may excrete no creatine and this is also true for some very young fullterm infants. This may limit its value as a diagnostic agent in the younger child. Some normal children show decreased creatine early and also periods without creatine by six years.

The tendency of creatine excretion to be low and entirely absent in hypothyroid children suggests it as a diagnostic adjunct in thyroid deficiency. Recently great fluctuations in the levels of creatine excreted by normal children were found by Wilkins and in many cases the excretion was as low as in hypothyroidism. After the fourth year no sharp distinction could be made between the hypothyroid cases and normal children because in each age group there were similar levels of creatine. When thyroid extract is administered to the cretin increased creatine excretion takes place and this has been of value as an aid in following dosage. In studying the response to the daily oral administration of thyroid or to the injection of a single dose of thyroxin Wilkins showed that the effect upon the serum cholesterol seemed better to differentiate the hypothyroid from the normal child than did the change in creatinuria. In regard to the increase in creatine Wilkins found that with thyroid creatinuria first increased and then after a period of weeks, decreased. Certainly there is a need for more detailed studies in normal children on controlled diets and over long periods of time. Creatine studies require hospitalization, a special diet and quantitative collection of urine over long periods. Single determinations on one 24 hour period may be of little value. Marked unexplained fluctuations in the daily excretion of cretaine occurs, both high and low values appearing in cycles, again emphasizing the importance of longer observation periods.

I have done no work in the field of iodine metabolism. Salter's book published in 1940 on the endocrine function of iodine is recommended for an excellent presentation of the subject. I will only mention a few important considerations.

In hypothyroids there is a diminished secretion of hormone from the thyroid gland. In cretinism the gland may contain 1/10 the normal amount of iodine. When the thyroid is removed the normally high iodine content of the pituitary, ovaries and adrenals drops; this suggests the involvement of other organs in thyroid deficiency. There is undoubted relationship between the thyroid and the pituitary mediated through the thyrotropic hormone with which I have had no experience. Wilkins found the determination of this hormone unreliable and of no diagnostic value.

It is not as yet possible to predict from the fasting plasma iodine level whether or not the patient is suffering from lack of thyroid hormone or iodine. In hypothyroidism there is a tendency for the iodine to be low unless the patient is getting iodine from food or medicine. The problem of whether the patient is lacking thryoxine-like material is still in the investigative stage and is dependent upon better measures for fractionation into inorganic and organic iodine since the latter alone is believed to be physiologically active.

There is certainly need for more extensive studies of the metabolism of iodine in thyroid deficiency. Iodine determinations are subject to many misinterpretations and the extent to which they can be utilized is still problematical. Nevertheless, it may hold the key to the situation.

The use of radioactive iodine and the possibility of specific radiation therapy to the thyroid is of interest. The oral administration to cretins of a known amount of radioactive iodine isotope and its uptake by the thyroid gland was determined. The thyroid took up less than 1/10 as much iodine as the glands of normal patients.

The roentgenological assessment of skeletal development has been extensively employed in hypothyroidism as an aid in studying general body maturation. As early as 1896 Hertöghe demonstrated retardation of the carpal bones in cretins. Since the carpal centers are the most accessible they have been used for determining osseous development. We have evidence of some relation between mental and carpal development based on the roentgenograms of the wrists of thirteen of our children secured before and after treatment. Retarded bone age is a reliable index and while it does occur with thyroid deficiency it is not conclusive for hypothyroidism. Many factors and conditions other than decreased thyroid function are involved. Thyroid admin-

istration causes rapid correction of the osseous defect. In hypothyroidism of short duration or in the treated cretin carpal assay has limited value. The absence of the inferior epiphysis of the femur usually present at birth in all newborns, unless there is a frank prematurity, is an interesting finding in congenital sporadic cretinism and may be evidence of retarded osseous development occurring in utero.

The endocrine implications of chondro-epiphysitis or epiphyseal dysgenesis characterized roentgenographically by fragmentation, stippling and rarefaction in the developing osseous centers is of interest in relation to hypothyroidism.

Recently in conjunction with Brodie and Engel cephalometric studies were carried out in an appraisal of cranio-facial growth in our thyroid deficient children. The findings indicate reduced growth affected by retardation in velocity rather than by a modification of the pattern of growth. With therapy there is an approach to normal levels of development.

Prognosis is dependent upon early recognition and persistent treatment thereafter. Interrupted therapy, which is quite inadequate, I seldom encounter today. We have a specific in thyroid extract administered orally. In only two instances was thyroxine given parenterally. One, a female cretin, five years of age, had an unusually large tongue that interfered with swallowing; a second came in with an extensive bronchopneumonia and later died, necropsy revealing complete athyreosis. In the growing hypothyroid child the action of the thyroid is anabolic and this can be demonstrated by studies of calcium and nitrogen. Recently the activity of iodinated serum proteins has been described with successful responses in cretinous humans and thyroidectomized rabbits. Iodine which has little calorigenic effect has also been used in children in addition to the specific therapy. I employ ample D in addition to the other vitamins. Anterior pituitary products containing growth units have been administered, however, with no results.

It will be gathered from the short review of the various aids employed, in addition to the well known physical signs, that at the present time from the work of others and my own, there is no general rule by which either the assessment of osseous development, determination of basal metabolic rates or the measurement of blood iodine, cholesterol or urinary creatine can gauge optimal therapy. While the study of these has led to much useful work, they are not as yet exact criteria.

In my experience each case must be studied from the point of view of the physical, osseous and mental growth to determine optimum thyroid ration. Nevertheless, we have employed the following table with many modifications with quite satisfactory results:

Age	*Daily dosage of thyroid extrat*
6 months to 1½ years	gr. ss to gr. i ss
1½ years to 8 years	gr. 1 to gr. iii
8 years to adolescence	gr. i ss to gr. iii

I shall consider prognosis from the point of view of the mental growth, which includes adjustment studies and speech progress, and physical development which includes sexual maturation. Time will not permit a detailed discussion of either of these and I will, therefore, complement this material with a number of slides.

I have been interested in the degree of physical growth possible in the treated cretin .This is determined by the period of recognition, since modification of the growth pattern depends upon this. The physical fitness of these children is judged by repeated physical examinations, height and weight records and osseous growth. Employing the Baldwin chart and arbitrarily defining good as above the median normal, fair as within this level and poor as below this accepted status, I have provisional data on 30 children. Nineteen cases fall in the first category and they represent children recognized between one and seven years and actively treated after recognition. Four cases recognized between seven and eleven years reached a fair standard, while in the realm of poor physical development we encountered seven cases who were not recognized until eleven years or above.

Mental development was determined by psychologic tests over a period of from one to seven years. Unquestionably, inasmuch as some of the children respond poorly to therapy even when this is given promptly the value of early diagnosis and active and persistent treatment thereafter is reflected in the outcome. Although the available evidence indicates that the level of mentality of cretins can but infrequently be brought within the normal range by thyroid therapy, there is a favorable response in many

cases which shows a rough correlation to the intensity of therapy. In the juvenile hypothyroid where the gland is normal at birth and its function is disturbed later by some known or unknown factor, the prognosis is generally better.

Throughout the group there was a slight increase in the intelligence quotient during the period of treatment; moreover, the increase was greatest where tratment was begun early. Although 25 percent of the patients were at the imbecile level and 50 percent at the borderline or high grade defective level, nevertheless, without treatment all of them would probably be at the low level. The response of these children to treatment is of significance. The treatment before referral may not have been as active or persistent for those with the low ratings as for those with the higher ratings. Promptness and continuity of treatment are apparently not the only factors. The glandular dysfunction may have been more severe in those who remained at the lower level than in those at the higher level. In some cases the failure to develop may be due to the fact that the thyroid deficiency was associated with primary feeblemindedness, which was the case in only one of our patients. Any one of a number of factors, therefore, may account for the failure of some children to respond to thyroid treatment. A number of the children were given a variety of performance and achievement tests. From our data there is no evidence that they have any special aptitudes or abilities, nor is there anything to indicate that cretinism is confined to families of low intellectual or social status.

The totally inadequate and defective speech sounds of cretins as well as the relationship of low intelligence to speech status have heretofore been observed only as part of their general symptomatology. On treatment some of the cretins developed language facilities within the short space of six weeks, a phenomenon which normally occupies the period from birth to two to three years of age. This may have some bearing on the development of speech in normal children. I have no explanation for the rapid development of speech; however, it is interesting to speculate that since thyroid activates metabolism and with it mental processes, the sudden release of the speech mechanism by medication may come about in the same manner.

Patients between the ages of 1 and 7 years and those of 17 through 21 years seem to have made the best adjustment and are best accepted by their parents. In the first group, acceptance may be due to the fact that they are still considered babies and are sheltered in the home and the security with their parents may be greater. The older group are able to take care of themselves and cause little disturbance, and their experiences in school and work are fairly successful.

The children between the ages of 7 and 12 years have difficulty in adjusting themselves to other children. They are not sheltered as are the younger ones, and they are making their first attempt to relate themselves with normal children. There is a good deal of sibling rivalry in this group. At this age the parents may be impatient because of the failure to compete successfully with normal children. Between the ages of 12 to 17 years a little better adjustment is made than in the previous group.

Glandular therapy has been successful in helping our children make adequate adjustment by accelerating their physical growth and stimulating them to activity. They are better accepted by their parents and other children because their appearance is more normal and their behavior is more like that of children of the same chronologic age. The adjustment of the older group suggests that, even with low intelligence, treated thyroid deficient children are able, provided that the family attitude is healthy, to be partially self-supporting and work out satisfactory relationships in and out of the home.

DISCUSSION

Dr. Carlson: I would like to make one suggestion to Dr. Bronstein who said that in this seven months old cretin there was no thyroid; I wish he had said no thyroid was found. The fact that we do not find it does not mean that we have not overlooked it somewhere.

We shall now start the discussion and consider the questions which have been sent in.

Question: May disabled thyroid activity be a factor in the etiology of clinical rickets? If so, to what extent?

Dr. Kunde: I think that is a question which is very important and significant in the practice of pediatrics. I have heard excellent pediatricians say that in some of their experiences they have found rickets in very rapidly growing children where an adequate vitamin balance seemed to be present. Rickets is virtually inseparable from the problem of growth.

So is the thyroid physiology in the young linked with the problem of growth. You get no rickets unless there is growth. That we demonstrated in our animals, and I know pediatricians have the same viewpoint. We watch the rapidly growing child for the appearance of rickets. If a child is growing very rapidly that should mean there is adequate thyroid hormone, but there may be imperfect balance between the thyroid and vitamins. It should do away with the possibility of us trying to remedy this with thyroid. I think we have to study the entire metabolic state of the child very critically and very carefully before we begin any specific therapy.

I am sure I would take some exception to Dr. Bronstein in some of his presentations. It is true that we find rickets invariably in all thyroidectomized animals of every species we have studied. We also found a practically normal calcium content of the serum and a low acid phosphorus.

No amount of antirachitic substances prevents rickets in cretin rabbits completely. I think in the growing child with rickets we must analyze carefully; is there an endocrine imbalance? Would it seem advisable to give thyroid? I think in a real obstinate case of rickets I would give small doses of thyroid and watch the rickets.

Dr. Swann: In recent studies, attention has been called to deficient absorption present in thyroidectomized animals and in the human as well. I would suggest that perhaps these cretins were not able to absorb the vitamins in the diet, Parenteral administration might cure the condition.

Dr. Bronstein: May I say that in pediatric practice the fat and fast growing child may develop rickets. It is very interesting that recently I have seen some children who were considerably underweight and received no vitamins who showed very little evidence of rachitic changes in the bones.

Dr. Kunde: We all see many demonstrations of that. I also think we have to consider the permeability of the cells. Perhaps the vitamins have a different threshold of permeability than the hormones; maybe the hormone changes the permeability rather markedly. It is a very interesting question and I am sure we will not solve it this afternoon.

Question: Why do certain hypothyroid individuals react more severely to thyroid administration than do normal individuals?

Dr. Carlson: Who is normal and when? I remember in my advanced course on the endocrine glands at the University we used to run an experiment on ourselves. Every student took ½ gram of thyroid daily and studied the effects. These students were presumably all normal. Once or twice one of these students has gone clear off on that amount of thyroid. Was he normal or not? Was he afraid of taking a poison or what? But some apparently normal individuals will go off on a very small amount of thyroid.

Dr. Kunde: I would like to remind the group that I showed that picture of Benny the cretin. He was one of the most carefully studied cretins ever published and DuBois could not find a dose of thyroid small enough for him to tolerate. The smallest possible dose seemed to be followed by untoward symptoms.

Dr. Carlson: I remember work done in which a very young rabbit and a cretin rabbit of equal weights were used. The cretin rabbit tolerated less thyroid than the normal rabbit. There is some factor of resistance in this problem and that resistance is lowered when you have produced that degree of cretinism for some time.

Dr. Swann: The totally thyroidectomized animal is very sensitive to thyroxine — 30 times more than the normal, in fact. Sensitivity to thyroid is directly related to the degree of cretinism; that is, the more cretinoid, the less thyroid the individual can tolerate.

Dr. Bronstein: Some workers who have had experience with older cretins have remarked that thyroid extract in these people is of limited value besides making them irritable. In this boy of 23 I have observed no such phenomenon. He has grown a little and gets along fairly well.

As to the question Dr. Carlson brought up about the difference in tolerance, I have taken 3 grains of thyroid with little effect, and yet I know a man in one of our departments who on ¼ grain insists that he feels perfectly well and when that dose is increased to ½ grain or more it "sends him off." I do not know how much that observation is worth.

Originally in the work on basal metabolism, I thought that blood cholesterols might help us in determining accurate dosage. I had several children in whom 3 grains of thyroid had no more effect on the blood cholesterol than 2 grains.

Question: Is an individual who is sensitive to thyroid apt to have any other sensitivity?

Dr. Carlson: The only situation I know is the unusual sensitivity to insulin.

Dr. Swann: These patients are more sensitive to morphine.

Dr. Carlson: There is very little information on this, so far as I know. I would say the question, which is fundamental, cannot be answered on what we know today. I wonder whether it is not a part of the general picture. I had a colleague once who got genuinely drunk on one glass of ordinary beer. That was unusual sensitivity.

Dr. Bronstein: What about the sensitivity of patients with Addison's disease?

Dr. Carlson: I do not know whether thyroid has been used.

Dr. Kunde: Thyroid does not help them any.

Question: Is the therapeutic test of thyroid hypofunction safe?

Dr. Bronstein: From my experience I believe it has value.

Dr. Carlson: Is it safe? My answer would be yes. I think it is safe in the hands of a competent person. Is it a practical method? My answer to that is yes. It is not very quantitative unless you have laboratory methods available.

Question: Will you suggest why some whole pituitary gland products have some therapeutic effect by mouth while others do not?

Dr. Carlson: I would like to know what his evidence is for the positive part of the question. Are any of the whole pituitary gland products therapeutically active by mouth? They are helpful to the manufacturers but are they helpful to the patient?

Dr. Bronstein: I would say that they are of little value.

Dr. Carlson: Once upon a time Dr. Collip spoke at a meeting on this problem and I listened to him and I started to question him, and he admitted that his evidence was not very good, and I think he has changed his mind.

Dr. Swann: Experimentally we cannot prove that any of them is active by mouth.

Dr. Carlson: These excellent men, like Dr. Smith, used them to control their animals that were hypophysectomized, and they got nothing. When they planted the whole fresh pituitary in the abdomen under the skin they got some good evidence. I would have to have pretty good evidence that it works by mouth in man; I have not seen it.

Dr. Kunde: I think there is some evidence of the sex stimulating factor working by mouth. I say that because I have had considerable experience giving this to women with endocrine amenorrhea and if one gives a sufficient quantity I would say that it has some effect. I am speaking now only of the sex stimulating factor of the anterior lobe. That is not easily destroyed. I have a number of young women patients who menstruate perhaps only every two or three months and then scantily; other functions are seemingly normal. Pelvic examination may show an infantile condition of the female reproductive organs, but otherwise normal. I can by properly regulated dosage and giving this substance at certain intervals in the cycle, get a menstrual period every twenty-eight days. As soon as I stop they revert back to their former sluggish menstrual condition.

Dr. Carlson: Have you tried placebos?

Dr. Kunde: No. I use dessicated anterior pituitary and I give it by Kerokote capsule in large doses.

Dr. Carlson: I must remind you that if you give overwhelming amounts, such as 2000 to 3000 units of insulin, you do get some absorption from the gut. So by flooding the system with some of the hormones you may get a little gut absorption. There may be absorption under the tongue or in the mouth and pharynx, but for all practical purposes there have been very little evidences to prove their worth by mouth.

I would like to remind you of what we did in the way of ovarian hormones by mouth before we knew anything about their solubility. What we did was to degrease, de-fat the ovary so that it was nice and clean and the fat and the fat solvent was thrown away, and that part contained the hormone. The remaining inactive stuff was given to women to cure their specific disturbances. To me there is still no good evidence that the pituitary factor is active by mouth.

Dr. Bronstein: In my reading, when somebody asks why thyroid is so effective by mouth, it has been said that if you go back in the lower animals, thyroid is secreted into the gastro-intestinal tract and was effective.

Dr. Carlson: Who would tell you such fairy tales? I do not know of any animal in whom this is true. There is no thyroid below the vertebrates. This is one of those armchair speculations that may bluff the ignorant. There is nothing to it.

Question: A girl, now fourteen years of age is on thyroid extract 1 grain t.i.d.; her basal metabolic rate is still minus 20. She has been on thyroid extract for four years. Recently ½ c.c. of anterior pituitary extract was started every third day. She is two inches taller than normal but her weight is normal; there have never been any mental retardation or excessive hair. Menstrual periods are normal now with ovarian concentrates. Should thyroid extract be continued?

Dr. Carlson: This is a good question. I am glad I do not have to answer it. I wish my freshman medical students were here, because they would realize that when you are out on duty you are faced with more difficult research problems then you face in the laboratory.

Dr. Bronstein: I think this comes back to what I agreed with before, that a lowered basal metabolic rate is not specific for hypothyroidism.

Dr. Carlson: Is this necessarily abnormal? A plus or minus 10 per cent is normal, and I believe in an occasional individual a minus 20 is normal. That is the only caution I want to make: it is not necessarily abnormal because the basal metabolic rate is not a straight line. You remember our debate with Lusk about that. He insisted that the basal metabolic rate for any species under the same conditions was a straight line. Of course, that is not so.

Question: Would there not be other physical phenomena that would tell of the subnormal conditions of this patient?

Dr. Carlson: If that low basal rate was really due to too little thyroid hormone, then there should be other signs of hypothyroidism.

Question: How efficacious is anterior pituitary extract in controlling a low basal metabolic rate?

Dr. Swann: I hesitate to answer that.

Dr. Carlson: I remember years ago somebody who tried administering pituitary extract to overcome the low basal in an experimental cretin; it did not work. Of course, they did not have good extracts then.

Dr. Swann: They have only poor extracts today.

Dr. Carlson: I was a little surprised that Dr. Swann did not mention this difficulty when you try to produce a continued hyperplasia of the thyroid and continued hyperthyroidism by the continued administration of thyrotropin pituitary hormone. You fail in a few weeks or months.

Dr. Swann: Raising that question is like saying, how do you feel about the war? The subject of antihormones is still so controversial that it is difficult to say anything definite about it at all.

Dr. Carlson: But I think this group, which may not follow the more ultra-scientific literature, should know that that question is before us. It raises the question of whether the pituitary over-secretion can produce and can keep up the hyperthyroidism that lasts for ten years.

Dr. Swann: It was that in mind that made me slow in answering. Individuals do not respond to commercial products after a long period of time. That is only one of the reasons why the available products are poor, and so, by and large, I think the chronic administration of these substances is to be avoided if possible.

Dr. Bronstein: I wonder, when this question was asked, did the doctor have any particular product in mind? Was it the sex or growth hormone?

Doctor: This youngster is over-height. Should the growth hormone be given? I am controlling, or trying to control, the low basal metabolic rate, but I wonder if it is dangerous to give the anterior pituitary extract.

Dr. Bronstein: I would say that it would be dangerous, assuming that the growth products are very active, which I doubt. I agree with Dr. Carlson that a minus 20 may be normal in this case. If you assume that the products which are purely growth stimulating are very active and if the epiphyses are closed in that child, then the danger of producing acromegaly is possible, but so far as I am concerned the growth hormones on the market are not very effective. In animals the growth material will work very beautifully but in humans it does not. If you have a child who is under-height and whose epiphyses are open and give him growth material, I am not impressed with the potentialities of the materials on the market today.

Dr. Carlson: Yes, but look at the difference between the clinical experience on a healthy animal and the work on this unknown child who comes to you. You take an animal which, so far as you know, is healthy; take out the anterior pituitary lobe and then give it these extracts and you get results. But now here comes a patient who is undergrowth or overgrowth. You are guessing as to whether this is a pituitary hypo- or hyperfunction. There may be a great many other factors, and that is why we do not get 100 per cent success with hormone therapy in the human such as we have in monkeys or lower animals. There you start out with a normal animal and you do one thing and it works. But in the human you are guessing that one link and only that link is broken. Evidently that is not so; it is much more complicated.

Dr. Kunde: I would like to say something that pertains in general. I think we should bear in mind that the basal metabolic standards we are following have been made on normal people, and many times we are trying to determine whether an abnormal person has a normal basal metabolic rate or not. That pertains to the kind of individual someone mentioned. Here is a boy, a Froelich's case, who is two inches taller than average for his age and much heavier, and he has a basal metabolic rate of minus 15 or 20. Is he or is he not a hypothyroid? We look at the basal metabolic rate alone and compare it to the standard and we see the minus 20 and decide it is hypothyroidism. We must remember that that measuring stick used does not pertain to this boy at all. We are using a measuring stick which pertains to a normal boy and, therefore, I feel sure that in the absence of other hypothyroid findings in these cases we should not administer thyroid extract.

In my experience, findings other than the basal metabolism are helpful in diagnosing hypothyroidism. They are the same findings following thyroidectomy in the laboratory animal where we have no complications except the hypothyroidism. These findings are as follows: The body temperature is slightly subnormal, a minus 1 at least; that was invariable in all our cretin animals; there was always an anemia, which was a characteristic hyperchromatic anemia following thyroidectomy in all our animals; there was also a marked increase in cholesterol content of the blood after thyroidectomy; it would reach perhaps double the normal value. Those findings in a child — dwarfing in growth, anemia, hypercholesterolemia, subnormal temperature — are very much more accurate than the basal metabolic rate. We must also make careful x-ray studies of the epiphyses which in hypothyroidism show a typical retarded developmental pattern.

Question: Is there any contraindication to the use of thyroid in a person who wants to lose weight?

Dr. Kunde: In Dr. Carlson's laboratory we showed very clearly that the administration of a hormone to an animal having a gland that fabricated that specific hormone normally was deleterious to that normal gland. I fed thyroid to normal animals and on removal of their thyroid glands found much thyroid destruction. I think it is injurious to give it if the gland is functioning normally. I would not give thyroid to a child whose clinical findings do not indicate a thyroid deficiency.

Dr. Bronstein: It has been shown that where thyroid is given in such a case atrophy may take place.

Dr. Carlson: This is a very good question and I agree with Dr. Kunde practically 100 per cent, but I would remind this audience of this: If you give enough thyroid to an obese person he or she will lose some weight, but you also know that that is one of the methods of the quack. You might reason that thyroid substance is safer in the hands of the doctor than in the hands of the layman. I do not believe that future experience will show that thyroid is a safe obesity cure, even in the hands of a doctor. I admit the human animal is difficult; he can stand a great deal before he is killed. I am not sure that he can stand a great deal before he is injured.

Little Miss Muffet decided to rough it
In a cabin both old and medieval:
A soldier espied her,
And plied her with cider,
And now she's the forest's prime evil.
—Yank.

OBSERVATIONS ON BACTERIAL ALLERGY IN SCARLET FEVER

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Occasional attacks of urticaria have been seen in the past in patients convalescing from scarlet fever at the Municipal Contagious Disease Hospital. When there was no apparent cause, such as scarlatinal streptococcus antitoxin or possibly human convalescent scarlet fever serum administration, then food allergy was blamed for the urticaria. The severity of an urticaria focused our attention upon the possibility that our usual explanation was not adequate, and studies were instituted to ascertain the cause. The early studies indicated the possibility of bacterial allergy as a cause of the urticaria, and a preliminary report was made.[1] The following three case reports are presented.

Case Report I R.B. A 25 year old male was admitted to the Municipal Contagious Disease Hospital on April 18, 1940, the fourth day of a typical moderately severe attack of scarlet fever. He received 40 cc. of convalescent serum intravenously on admission. His temperature dropped, rash faded promptly, and convalescence was uneventful until the seventh day of hospitalization or the 11th day of disease, when an attack of severe giant urticaria developed. Attempts to control the urticaria with adrenalin were unsuccessful because the side reactions were so severe. The urticaria lasted eight days, accompanied by fever of 100 to 101° F. and arthritis for the first three days. The symptoms were not affected by calcium gluconate or histaminase given intravenously. The administration of human convalescent serum was considered the probable cause of the symptoms.

However, at this time we discovered that the patient had a very unusual and interesting history. He was hospitalized at the Municipal Contagious Disease Hospital both in 1934 and 1936 for previous typical attacks of uncomplicated scarlet fever. A review of the hospital charts revealed that he had suffered with urticaria in 1936 during his second attack. It is particularly interesting that he had received no convalescent serum for either prior admission, yet urticaria had appeared with the second attack. The first episode began on the 11th day of disease, lasted three days, and required ephedrine and amytal for relief. It is significant that other than the two instances of urticaria described, the patient had experienced no allergic symptoms. In view of the history, we felt that the cause of the urticaria should be investigated. The concomitant appearance of scarlet fever and urticaria twice led us to consider the possible rôle of the hemolytic streptococcus as the agent responsible for the allergy.

Pure cultures of hemolytic streptococci were isolated from the patient's throat and grown in veal infusion broth of pH 7.4 incubated at 37° C. The following testing materials were prepared: (1) 48 hour broth cultures killed by 1/5000 merthiolate, (2) the same culture washed three times with sterile 0.85 percent salt solution and resuspended in salt solution, and (3) heated and unheated Berkefeld N culture filtrates. The heated filtrate was prepared by incubation in a water bath at 80° C. for 1 hour.

On the 28th day of disease intradermal injections of 0.1 cc. of the above materials were made into the volar surface of the forearm. In addition to the above, control inoculations of horse serum, human convalescent scarlet fever serum, and sterile broth of the same batch used to culture the streptococci were made. The reactions were noted and measured at one hour and 24 hour intervals. There was no reactions to sterile broth, unheated filtrate, heated filtrate, convalescent serum, and horse serum at both readings. The killed washed culture at one hour produced a moderate redness and mild edema measuring 1.5 x 1.8 cms. At 24 hours it had subsided and measured 0.5 x 0.5 cms., but the area was still red and indurated. The killed broth culture gave a more severe immediate reaction at one hour which measured 2.0 x 2.0 cms.; at 24 hours it had subsided to practically the same size as the reaction from the washed culture.

Case II — F.A. — A boy of 11 years of age was admitted to the Hospital on April 27, 1940, on the 9th day of disease, at which time he was convalescent. He did not receive any convalescent serum or antitoxin on admission or prior to admission. He developed a moderate urticaria without fever on the 20th day of disease, which lasted for three days. This urticaria required calomine lotion, ephedrine, and amytal for relief. Since this was almost coincidental with the first case, the same procedure of skin testing was followed using testing materials prepared from the homologous strain of hemolytic streptococcus. The reactions to the sterile broth, the unheated filtrate, the heated filtrate, and human convalescent serum were negative at the end of one and 24 hours. The killed washed culture, the killed broth culture, and the normal horse serum gave both immediate (one hour) reactions and 24 hour positive reactions. The reaction to the broth culture measured 1.7 x 1.7 cms. in one hour; and at 24 hours it was red and indurated and measured 3 x 3.5 cms. The washed culture reaction

From the Municipal Contagious Disease Hospital, Chicago Department of Health and the Samuel Deutsch Serum Center, Michael Reese Hospital, Chicago, Illinois.

measured 2 x 2 cms., and was red and indurated both at one and 24 hours. The normal horse serum produced reactions the same size and character as the washed culture.

Case III — M.M. A 16 year old girl was admitted to the Hospital on the 8th of August, 1940, on the second day of a moderate attack of scarlet fever. She received 20 cc. of human convalescent serum intravenously upon admission. On August 11, 1940, three days later, she developed edema of the lips, severe urticaria and an elevation in temperature of 2 degrees (F.). This urticaria was of 4 days duration. In view of our previous experience the same procedure of skin testing was followed. The reactions to convalescent serum, sterile broth, heated and unheated filtrates, and horse serum were all negative at both readings. The broth culture gave both immediate (one hour) 3 x 3 cms. and 24 hours 2 x 2 cms. reactions which were red and indurated. The washed culture was positive at one hour, measuring 0.5 x 0.5 cms. but negative at 24 hours. The materials from the previous two cases were then injected into this third patient. It was of interest that she was sensitive to the broth cultures from the previous two cases. The broth culture from Case I caused a positive reaction measuring 0.5 x 0.5 cms. in one hour, which was still red and indurated at the end of 24 hours. The broth culture from Case II produced a reaction in one hour, measuring 2 x 2 cms., which was red and edematous and subsided to 0.5 x 0.5 cms. in 24 hours. The reactions were not as marked as those appearing in the first two cases.

As a matter of passing interest, all these patients had negative Dick tests upon discharge.

DISCUSSION

Due to the small number of cases studied, no definite conclusions can be drawn. However, the responses described above indicate that the hemolytic streptococcus may have been implicated in the appearance of urticaria. It appears that an incubation period occurred and in this respect resembles the allergic response seen in patients who have received horse serum or other known sensitizing materials. However, at no time has high fever been noted, which commonly accompanies the manifestations of serum sickness. There was an incubation period comparable to that seen in horse serum sensitivity in only one case (the third). The other patients developed their urticaria rather late in the course of the disease. It is a matter for speculation if the first patient had been sensitized to the hemolytic streptococci and their products during his former attacks, which may explain the increasingly severe reactions seen on his second and third attacks of scarlet fever. It should be noted that these patients had uncomplicated scarlet fever.

It appears that the skin reactions observed are separate and distinct from that produced by the Dick toxin and might have resulted from hypersensitivity to the whole hemolytic streptococcus or some of its antigenic components rather than to its toxic filtrates. The urticaria appeared when the patients were convalescing and gave negative skin reactions to the Dick and homologous toxins. Goodall and Washbourn[2] described an uncommon secondary rash which occurs most frequently during the second and third week of scarlet fever and which is distinct from the punctuate erythema present at the onset of disease. They do not attempt to explain the cause but call attention to the close resemblance of this rash to the urticarial eruption following the injection of therapeutic sera. Our observations appear analogous to those of Derick and Swift[3] who observed a secondary skin reaction at the primary site of inoculation in rabbits inoculated with non-hemolytic streptococci by the intracutaneous route about 10 days previously. The primary reaction had receded at the time of the secondary reaction. Coincident with the appearance of this secondary reaction, the rabbits were hypersensitive to the inoculated streptococci and exhibited cutaneous, corneal, and toxic reactions similar to those produced by tuberculin. These workers believe that a sufficient amount of residual antigen remains at the site of inoculation to react by recurrence of acute inflammation when the animal has developed hypersensitiveness as the result of inoculation with the bacteria. Neill and Fleming[4] have described an "immediate" skin reaction to derivatives of the diphtheria bacillus distinct from the "delayed" or "pseudoreaction" usually seen in adults. Unlike our cases, the skin reaction was invoked, not only by washed killed bacterial suspensions, but also by filtrates of broth cultures.

Many investigations have demonstrated repeatedly that man and other animals can be sensitized to killed bacteria and their products. The tuberculin test is a well known example of this type of bacterial allergy. The typhoidin reaction of Gay and Force,[5] which is positive in individuals immunized with typhoid vaccine or

recovered from an attack of typhoid fever, was one of the earliest to be published. Specific allergic skin reactions are of diagnostic value in bacterial infections such as glanders (mallein) and infectious abortion of cattle (abortin) and in parasitic disease, such as trichiniasis, hydatid disease, and metazoan infections.[5]

Because this is a preliminary report, much remains to be done in studying the possible correlation of bacterial allergy to hemorrhagic nephritis and non-suppurative arthritis observed during an attack of scarlet fever. These complications are usually rather self limited, respond readily to symptomatic treatment and apparently leave no residua. It is commonly believed that the arthritis of scarlet fever is usually accompanied by some cardiac lesion. In our experience, it is extremely unusual to find cardiac lesions appearing in these patients.

The possibility of human convalescent serum as the cause has been considered and apparently at least in these cases does not appear to have any relation to the urticaria. In the past, the appearance of urticaria has been attributed to human convalescent serum when this material was used. If no serum had been given, then food allergy was casually accepted as the cause. However, the patient usually recovered promptly without a change in diet; furthermore, patients who were known to be sensitive to certain foods in the diet did not manifest any symptoms. It appears that in the future more consideration must be given to the probable rôle of hemolytic streptococci in the production of urticaria.

An accurate survey has not been made of the cases of urticaria observed in scarlet fever at the Municipal Contagious Disease Hospital, but the number is very small and estimated to be approximately 0.5 percent. The procedure of attempting to reproduce an attack of urticaria by means of intramuscular or intravenous injection of the presumably sensitizing materials was not attempted. The patients were at the end of their quarantine period when tested and did not remain in the hospital for further study. Also, the risk of severe reactions deterred this type of investigation.

SUMMARY

Three patients that developed urticaria while convalescing from uncomplicated scarlet fever were tested with various preparations from the hemolytic streptococci isolated from their throats. Positive skin reactions were constantly observed from the intradermal inoculation of suspensions of killed washed and broth cultures, while heated and unheated Berkefeld filtrates, Dick toxin, and human convalescent serum gave no reaction.

One patient had three attacks of scarlet fever for which he was hospitalized. He had a mild urticaria with his second attack of scarlet fever, and a severe urticaria with his third attack.

The possibility of bacterial allergy as a cause is presented, and the possible correlation of such allergy to delayed or late hemorrhagic nephritis and nonsuppurative arthritis is considered.

BIBLIOGRAPHY

1. Presented to the Chicago Society of Internal Medicine, Chicago, December 16, 1940.
2. Goodall, E. W., and Washbourn, J. W.; A Textbook of Infectious Diseases, Third Edition, H. K. Lewis and Co., London, p. 4 and 262, 1928.
3. Derick, C. L., and Swift, H. F.; Reactions of Rabbits to Non-Hemolytic Streptococci; General Tuberculin-Like Hypersensitiveness, Allegry, or Hyperergy Following Secondary Reaction, J. Exp. Med. 49:615-636 (April) 1929.
4. Neill, J. M., and Fleming, W. L.: Studies on Hypersensitiveness to Diphtheria Bacilli; "Immediate" Skin Reaction Which can be Passively Transferred, J. Exp. Med. 49:33-52 (Jan.) 1929.
5. Gay. F. P., and Force, J. N.: Studies in Typhoid Immunization: III. A. Skin Reaction Indicative of Immunity Against Typhoid Fever, Arch. Int. Med. 13: 471-479 (March) 1914.
6. Gay, F. P., and Associates: Agents of Disease and Host Resistance. Charles C. Thomas, Springfield, Illinois, p. 79, 1935.

Tuberculosis work has consistently stressed the major importance of positive health, of being more physically fit than the immediate demands of your life seem to require. This we may well call the margin of safety in living. Doctor Edward L. Trudeau was not quite wise in advocating too early exercise for his patients but he was basically sound in his faith in the health-giving power of the outdoor life.

It its advocacy of personal hygiene, of physical fitness as a worthy objective *per se*, the tuberculosis control movement has led the field. It has the position of spike horse on the public health team and has trampled a path for the others to follow. Kendall Emerson, M.D.

Men of good-will are always at peace; men of good repute and dignity are men of good-will.—*Baltasar Gracián.*

STUDIES INDICATE PROSTIGMINE MAY BE OF VALUE IN TREATING POLIOMYELITIS

Preliminary studies of the use of prostigmine as an adjunct in the treatment of infantile paralysis suggest that it has important effects on the spinal cord in man which appear to be of value in the treatment of the disease, Herman Kabat, M.D., Ph.D., and Miland E. Knapp, M.D., Minneapolis, report in *The Journal of the American Medical Association* for August 7. Prostigmine is a drug known for its stimulating action on muscles.

Drs. Kabat and Knapp say that in their studies "The approach to therapy (treatment) has been based on the (Sister Elizabeth) Kenny concept of the disease. In a series of 20 patients, most of whom were in the subacute stage of the disease, the results have been encouraging. The drug significantly increased the rage of passive motion (of involved muscles), decreased or eliminated deformities in some instances by relaxation of hypertonus (muscular rigidity) and in some cases improved active motion. In a number of instances muscle spasm has shown more rapid improvement when prostigmine was added to the Kenny routine. In a majority of cases the drug appeared to accelerate recovery."

The 20 patients were given the drug by injection beneath the skin, by mouth or by both routes as an adjunct in treatment. "In almost all cases," the two physicians say, "hot foments were continued throughout the period of prostigmine administration. . . . Seventeen of the patients were in subacute stages of the disease, ranging from two to six months following the onset. There were 2 patients with acute poliomyelitis at three to four weeks after onset and 1 with chronic poliomyelitis at sixteen months after onset.

"The improvement following prostigmine was clearly demonstrable in many subacute cases despite the continuation of the other forms of therapy. The acute cases showed improvement immediately after initiation of prostigmine therapy that was apparently more rapid than the improvement usually noted in such cases with hot foments alone. However, this is difficult to evaluate since the patients were progressing satisfactorily with the hot foments. A large series of acute cases will be necessary to establish the value of prostigmine. The 1 case studied sixteen months after the onset showed definite improvement, but more such cases must be investigated before one can say that prostigmine is of value in the chronic stage. . . .

"It is difficult to evaluate the improvement resulting from therapy in poliomyelitis. The disease is variable in the distribution and severity of involvement as well as in its course. Therefore it is often a problem to predict accurately the rapidity of recovery that would have ensued had treatment not been given. An additional variable was introduced in this investigation by the fact that hot foments were continued during the period of prostigmine therapy. In several cases rapid progress was seen with prostigmine, although the hot foments were discontinued during this period. The rapidity of improvement with prostigmine therapy in some cases suggests definite therapeutic benefit from the drug. In other cases one could not be certain that the improvement was due to the drug; 2 patients with severe involvement showed little recovery."

QUERIES INDICATE FUEL OIL RATIONING DID NOT IMPAIR PUBLIC HEALTH

Replies to inquiries sent public health officers in nineteen states and the District of Columbia about fuel oil rationing last winter indicate that no impairment of public health resulted from rationing fuel oil and that the ration order needs only minor adjustments to satisfy all public health requirements, Joel Dean, Director, Fuel Rationing Division, Office of Price Administration, Washington, D. C., declares in *The Journal of the American Medical Association* for June 19. Mr. Dean says:

"When it became clear that fuel oil would be rationed in a majority of the states, grave concern was felt for the effect on the public health. Many and dire were the prophecies of epidemics of communicable disease and of deaths from pneumonia, influenza and other respiratory ailments, and of resulting breakdown of public morale. A study of the medical aspect of fuel rationing was conducted by Leverett D. Bristol, and the findings were used as a basis of ration order 11 (fuel oil), which became effective Oct. 22, 1942. . . .

"From time to time, especially during the first two or three months, alarming reports of illness, epidemic and death reached the national office. Every such case was investigated promptly in order to provide immediate relief if needed. No single case of death due to fuel oil rationing directly or indirectly has been substantiated nor any epidemic unearthed that could be laid to fuel oil rationing. In almost every report of sickness or other hardship, investigation showed either that relief had already been afforded through action of the local war price and rationing board or that the condition had been grossly exaggerated. . . .

"Notwithstanding our growing disillusionment, we never permitted ourselves to relax our vigilance, and every reported case was investigated promptly and thoroughly. With a program operative in thirty-three states and the

District of Columbia, and administered by thousands of local officials, it was inevitable that some genuine cases appeared, and even a few that had been badly handled. The percentage of these was so small, however, that the conclusion we reached in the Fuel Rationing Division was that no real detriment to public health had resulted from ration order 11.

"We felt nevertheless that, before entering on the second heating season under fuel rationing, this conclusion should be checked against experience of public health authorities throughout the rationed area. On Feb. 23, 1943, therefore, I addressed a letter to representative health officers requesting information (1) as to how fuel oil rationing had affected public health and (2) as to what changes in the regulation were recommended from that point of view and (3) as to whether a general conference of public health officials should be convened to discuss revision of the rationing plan. Replies were received from city, county and state officers of nineteen states and the District of Columbia.

"Significantly, the fourteen states not represented in the replies are those which have had less severe weather and from which fewer hardship cases have been reported. It is a reasonable inference that failure to reply is equivalent to a statement that no serious impairment of public health was observed in those states. It is not the experience of the Fuel Rationing Division that it is usual to suffer in silence or to decline an express invitation to complain if there is anything to complain about.

"The replies from the nineteen states and the District of Columbia, while frankly reporting some hardship cases and offering some adverse criticism, indicate clearly that, in the nearly unanimous judgment of the responding authorities, no impairment of public health resulted from rationing fuel oil, that ration order 11 needs only minor adjustment to satisfy all requirements of public health, and that such revision is not of sufficient gravity to warrant a general conference of public health officers. . . .

"The only point of difference between the conclusion we had already reached in the Fuel Rationing Division and the summary of these replies concerns the possibility that some deaths reported from Massachusetts and one death reported from New York may have been due to lack of fuel oil for heating purposes. Without full investigation the validity and degree of this difference cannot be determined accurately, but it is evident that such cases are highly exceptional and relatively few, even if they can be established.

"A recent canvass by Bristol of the physicians and health officers who assisted him in his original study indicate no general divergence of opinion from that expressed by the majority of health officers who replied to my letter."

THE THIOCYANATES IN THE TREATMENT OF HYPERTENSION

Thiocyanates are capable under certain conditions of depressing blood pressure of hypertensive subjects. Initial dosage may vary from 5-15 gr. daily, administered as the sodium or potassium salt, in either liquid or tablet form, the latter being more convenient and perhaps less productive of nausea. Dosage must be controlled by suitably frequent determinations of the blood thiocyanate level, the objective being a concentration of 8-12 mg.%. The first blood estimate usually is made 1 week after institution of treatment, weekly thereafter until a constant therapeutic blood level is attained. When a therapeutic response is elicited with a satisfactory blood level, checks are made at intervals of 1-3 months. The quantity of drug necessary to maintain a therapeutic blood level varies considerably among patients, and may vary in the same patient depending on fluid balance, fluid intake, and physical activity. During the first few weeks of treatment with thiocyanates, many patients experience marked fatigue, somnolence and mental retardation, which disappear rapidly and spontaneously even though administration of the drug is continued or only decreased. — *Milton Mazier, M.D., and John A. Reisinger, M.D., Medical Bulletin of the Veterans' Administration.*

Order received by sergeant of the army motor pool: Four trucks to Fort Brady Gym 7:30 tonight for hauling girls to dance.

The bodies must be cleaned and seats wiped off. All curtains in place. — *Journal American Medical Association.*

Friendly Enemies

A convoy was on its way to Russia under enemy observation for practically the whole of ten long Arctic summer days. Focke-Wulfs circled round only 100 feet up. Finally the officer got fed up with the Focke-Wulfs and sent them a signal: "You are making us dizzy. Please go the other way round."

The Germans promptly obeyed. — *News Chronicle* London.

Industrial Health

Committee On Industrial Health — Frederick W. Slobe, Chm., 2024 South Western Ave., Chicago, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington, Milton H. Kronenberg.

REPORT OF COMMITTEE ON HEALTH PROGRAMS

At the 41st Annual Conference of the U. S. Public Health Service with the State and Territorial Health Officers, the Committee presented a rather extensive report. This Committee is composed of Drs. McCormack (Chairman), Dalton, Hill, Jakmauh, Rice, Scott, and Stricker.* All phases of health programs were discussed in this report, including that of industrial hygiene.

In connection with industrial health, the following recommendations were made:

"The Industrial Hygiene Bureau should survey and evaluate industrial health hazards in all plants.

"Potential exposures to toxic materials should be analyzed quantitatively to determine actual risk to the health of workers.

"Engineering services should be extended to all plants having hazards in order to secure control.

"Physicians should be stimulated to report all occupational diseases in order that investigation of the working environment may be made and corrective measures taken.

"The bureau should sponsor more and better plant medical departments and augmented nursing service within industry.

"The bureau should make available, through cooperation with other agencies, undergraduate and postgraduate study of industrial medicine.

"It should work in the closest harmony and spirit of cooperation with the committees on industrial health of the national, state and county medical societies.

"It should study occupational disease incidence and medical absenteeism recording and reporting and be able to make recommendations to industrial management.

"The bureau should be available at all times for consultative service to private physicians on occupational diseases.

"It should sponsor industrial programs on nutrition, venereal disease, dental services and the rehabilitation of sick or injured workmen.

"Special plant studies should be made on sanitation, illumination, heat and humidity, noise, shock and other causes of fatigue and recommendations made to management.

"A continuous and never ending educational program should be inaugurated to labor, to management and to the public to correct bad health, preserve good health and maintain industrial production, happiness and good will."

*McCormak, Arthur T.; Dalton, Charles F.; Hill, F. J.; Jakmauh, Paul J.; Rice, Thurman B.; Scott, James R.; Stricker, F. D.; Report of Committee on Health Programs, J. A. M. A. 122:672-675 (Jul. 3) 1943.

SUPPLEMENTARY VITAMINS

Drs. Barborka, Foltz, and Ivy in a recent article* discussed the relationship of the intake of the vitamin B complex and of the output in trained subjects. They state that factual evidence indicates that nutritional deficiency is prevalent in many parts of the country and that perhaps one-third of the American population is eating a diet which is not adequate in all respects. Their experiments were based on four students existing on a controlled, adequate diet and who had been trained on the bicycle ergometer for at least nine months; these subjects were then placed on a diet consisting principally of vitamin B complex. During the 82 days on the deficient diet, the subjects developed irritability, easy fatigability, lack of pep, anorexia, and increased leg pain during work periods; but they did not develop any objective signs of vitamin B deficiency. The urinary excretion of thiamine and riboflavin dropped to a low level, but the blood thiamine remained normal.

The authors conclude that diets deficient in vitamin B complex in trained subjects decrease the work output; that early mild states of mal-

*Barborka, Clifford J.; Foltz, Eliot E.; Evy, Andrew C.; Relationship between Vitamin B Complex Intake and Work Output in Trained Subjects, J. A. M. A. 122:717-720 (Jul. 10) 1943.

nutrition, with no objective evidence of deficiency disease, do prevent maximal work efficiency; that diets with about one-third of the recommended daily requirements of vitamin B complex produces objective symptoms of easy fatigue, irritability, lack of pep, anorexia, which symptoms disappear, with work output returned to normal or better within a few days following supplementation of vitamin B complex; and that vitamin B complex supplementation added to a vitamin B complex inadequate diet restores work output to efficient levels. Obviously, the use of natural foods to bring an inadequate diet to the required level is the ideal solution to the problem and official nutrition committees of organized medicine have stressed this fact; they have also decried the indiscriminate use of vitamins by the public. However, as long as the prevalence of inadequate diets of such a large number of workers in industry exists and until a nationwide plan of adequate diets becomes workable, discriminate vitamin administration to industrial workers on an inadequate diet is a sound policy.

"ARC FLASH" CONJUNCTIVITIS

Dr. Forrest E. Rieke, Medical Supervisor of the Oregon Shipbuilding Corporation and Kaiser Company, Inc., in his recent article discusses actinic conjunctivitis from electric welding arc.* This condition, though usually not severe, is very common, so a discussion concerning it is always timely. It is mistakenly assumed that this can occur from a single "flash", which is rare unless the individual is within a foot or two of the arc. Almost always the condition is an accumulated injury resulting from excessive exposure during several minutes or multiple exposures over a period of hours. The following treatment is advised:

"1. A darkened room or dark glasses.

2. Cold applications to the eyes.

3. A local anesthetic applied to the eyes: in watery solution while on the job and for immediate relief, in ointment base at night while attempting to sleep. The following are suggested: in water, pontocaine, butyn; in ointment, holocaine, metycaine, butyn.

4. A vasoconstricting drug such as ephedrine or epinephrine.

5. Occasionally 1 per cent homatropine to relieve iris spasm in severe cases.

6. A lubricant to relieve corneal drying — castor oil or lubricant base anesthetic.

7. Analgesics and sedatives in the very severe cases."

Preventative measures include:

"1. Protective devices have been employed; calobar type flash goggles with side guards, helmets, welding clothing, screens surrounding the welder at work.

2. Hazards have been explained through training classes, newspaper articles, labor union news sheet, shipyard magazine, safety pamphlets the like, and instruction in the methods of protection has been widely disseminated.

3. Ophthalmologists have been brought to the shipyards to instruct medical personnel in the diagnosis and care of eye injuries and diseases. They have also discussed the same problems in medical society meetings."

The author's summary is as follows:

"1. Actinic conjunctivitis, or arc flash, as seen in the Oregon Shipbuilding Corporation and the Kaiser Company, Inc., Portland, among 57,000 shipyard workers exposed at various times to the emanations from electric arc welding, is defined as a conjunctivitis caused by excessive exposure to the welder's electric arc and characterized by delayed onset, self-limited course of twenty-four hours, pronounced bulbar hyperemia, swelling of the lids, slight sunburn of the face, absence of discharge other than tears, extreme photophobia and a feeling of sand in the eyes.

2. Treatment is given for relief of symptoms through dark glasses, cold applications and the use of local anesthetic, vasoconstricting, mydriatic, lubricating and sedative preparations.

3. Prophylactic measures are outlined for the patient and his environment which can completely prevent occurrence of the injury."

*Journal of A. M. A., July 10, 1943.

HEALTH OF LEAD EXPOSED STORAGE BATTERY WORKERS*

"A study of 766 storage battery workers by Dreessen disclosed that 177 were affected by "early plumbism"; 168 of these had abnormal lead absorption and 9 incipient plumbism. Only 4 per cent of the men exposed to less that 0.75 mg. of lead per 10 cubic meters of air showed signs of abnormal absorption, whereas 54 per cent of those exposed to more than 3 mg. had early plumbism. There were no important time trends. Both blood and urinary lead values were higher in the affected workers. These values also increased with increasing atmospheric lead exposure. It appears that the more the blood or urinary lead values of an individual deviate from the range of unexposed persons the greater is the likelihood that such an individual will have other evidence of lead induced bodily changes. Reticulocyte, stipple cell and polychromatophilia values correlated generally with atmospheric lead concentrations and blood and urinary lead values. Therefore these hematologic

*Dreesen, W. C.: Journal of Industrial Hygiene and Toxicology, February, 1943 (as published in J. A. M. A., 122: 771-2 [July. 10] 1943).

determinations are apparently of value for the periodic appraisal of employees exposed to hazardous concentrations of lead. Albuminuria was twice as prevalent among the affected group as among the nonaffected workers. The greatest concentration of atmospheric lead occurred in pasting, oxide mixing, plate drying, plate finishing, plate repair, smelting and group assembly workrooms. Acutal exposure of workmen is variable and may be reduced by various engineering practices: enclosure, good housekeeping, wet methods, local exhaust, improved general ventilation and respiratory devices. Periodic inspection of employees by the physician is essential for detecting early cases of poisoning, for calling attention to deficient control measures and for impressing on the employee the value of washing the hands before eating and the wearing of respirators."

SHOCK DUE TO BURNS

Prinzemetal, Hechter, Margoles, and Feigen in a recent article described some interesting experimental work regarding the treatment of burn shock.* These experiments utilized 15,000 rats and mice in which the mortality was very significantly lowered by the use of commercial liver extracts. The crude liver extracts containing 15 injectable U.S.P. anti-anemia units were found to be the best. Their conclusions were as follows:

"1. There is a principle in liver which possesses the activity of combating shock due to burns.

2. This antishock factor present in some commercial liver extracts is not identical with the anti-anemia principle.

3. It appears that the liver principle effective against burn shock is not readily destroyed by heat or aeration and is precipitated from aqueous solution by acetone and ethanol.

4. Nine-tenths per cent solution of sodium chloride, when administered in amounts equivalent to 5 or 10 per cent of the body weight, is definitely effective against burn shock when given either after or thirty minutes prior to trauma.

5. Pretreatment with liver extract plus large amounts of 0.9 per cent solution of sodium chloride is significantly more effective than salt solution alone.

6. The liver factor described and large volumes of salt solution are the only agents which, in our hands, have been found to be effective in burn shock, adreno-cortical hormones, thiamine hydrochloride and other vitamins being without significant action. The renal pressor system likewise does not prolong the survival time of animals subjected to burn shock."

*Prinzmetal, Myron, M. D.; Hechter, Oscar, M. S.; Margoles, Clara, M. D.; Feigen, George, B. S.: A Principle from Liver Effective against Shock Due to Burns, J. A. M. A. 122:720-724 (Jul. 10) 1943.

The tuberculous person of the chronic pulmonary type in a quiescent state is safe to mingle with others provided there is assurance that no activation exists. Placement of such persons in well ventilated work rooms with medically controlled assignments requiring minimal physical effort is permissible. Many tuberculous persons employed in suitable jobs react favorably and do effective service under proper industrial medical supervision. Periodic X-ray examination, sputum analysis and clinical examination to safeguard patients and contacts are, of course, highly essential. Harvey Bartle, M.D., Jour. Amer. Med. Assn., Mar. 27, 1943.

The last world conflict sent tuberculosis rates soaring in the nations of Europe and brought about a slight rise even in this country. Today increases are noted throughout Europe. We hope to prevent an increase in this country. There is still time to lay down an effective barrage which could prevent rise due to the war. Although we have no apparent increase yet, the circumstances of overcrowding, unsanitary living conditions, and undue fatigue are striking apparent to everyone.

Tuberculosis strikes down the very individuals who are most valuable as war workers — men and women between the ages of 20 and 60. When protected from this disease, they are the human assets upon which the presumption of victory is based. When attacked by tuberculosis — and one per cent of our manpower is attacked — they become liabilities who perform their jobs inefficiently, join the rolls of the absenteeism club, and unwittingly, yet relentlessly, spread sickness to others.

Among the specific measures that can be taken to prevent a wartime rise in tuberculosis is mass chest X-ray examination of workers in war industries and families in war-industry communities.

Early discovery of tuberculosis is only the beginning of the story. There must be follow-up of all newly discovered cases, including after-care and rehabilitation of arrested cases that stay on the job after medical supervision, as well as active and infectious cases that require sanatorium care or outpatient ambulatory care during convalescence. C. M. Sharp, M.D., U.S. Pub. Health Service.

Liberty will not descend to a people; a people must raise themselves to liberty; it is a blessing that must be earned before it can be enjoyed.—*Abraham Cowley.*

MEDICAL EDUCATION FACILITIES FULLY MEETING WARTIME NEEDS

Number of Doctors, Excellently Trained, Being Graduated Is Largest In History, A.M.A. Council's Annual Report Shows

That the medical education facilities of the United States are fully meeting the wartime demands being placed on them is revealed in the forty-third annual presentation of educational data by the Council on Medical Education and Hospitals of the American Medical Association, published in the August 14 issue of *The Journal* of the Association.

The report says that the accelerated medical education program and increased enrolments in medical schools "are now producing excellently trained medical graduates for military and civilian needs in numbers far exceeding the production of doctors at any time in the history of this country. . . ."

Not only are the medical schools of the nation properly handling the increased enrolments, but improvements in curriculum also are being inaugurated. "Practically all schools," the report says, "report that, while the basic medical curriculum remains essentially unchanged, subjects of war significance are being stressed or have been added. The most commonly mentioned subjects in this category are Tropical Medicine and Parasitology, First Aid, Shock and Blood Substitutes, Burns and War Wounds, Venereal Diseases, Aviation Physiology and Medicine, Industrial Medicine, Public Health, Chemical Warfare, Military Medicine and Chemotherapy.

"Two generalizations may be made from scanning this list: First, the subjects are not limited to clinical topics of a purely 'practical' nature but involve a well material of basic scientific importance. Second, many of these subjects will continue to be of great medical importance after the war, so that these wartime additions to the curriculum are not simply necessary educational concessions to an emergency but will probably continue to justify their inclusion in our educational programs after the war. . . ."

The increased demands on medical schools are being met by faculties seriously depleted by the numbers who have entered the armed forces. Up to July 1, 1943, the seventy-six medical schools and schools of basic medical sciences in the United States had contributed 5,637 faculty members to the armed forces.

It is pointed out that at present virtually all medical schools in the United States are operating on an accelerated program, admitting a new class approximately every nine months and condensing the traditional four academic years of the medical curriculum into three calendar years by omitting summer vacations, without a reduction in total classroom, laboratory and clinic hours. The report states that there are now sixty-six approved medical schools in the United States. Between July 1, 1942 and the opening of the first academic session commencing in 1943, varying in different schools anywhere from January to July, there were 5,223 graduates. To this figure may be added the estimated 10,889 students who will graduate between the time of the opening of the first academic session in 1943 and January 1945. This will be an average of 6,445 graduates per calendar year, which far exceeds the number ever graduated from schools in the United States even at the time when one hundred and sixty schools were operating in 1905. "This figure," the report says, "is a conservative expression of the probabilities, since there will probably be an additional 4,500 graduates in the first six months after Jan. 1, 1945, totaling over 20,000 graduates in a period of exactly three years from July 1, 1942 to July 1, 1945, or nearly 7,000 a year. . . ."

Throughout the country freshman classes will enter one or more medical schools during every month from September 1943 to January 1945 with the sole exception of the month of December 1944. Dates of graduation will also be staggered throughout these months, with most of the students graduating in the months of December 1943 and September 1944, although some students will complete their work and be available for internships in every month of this period with the exception of the months of September 1943, May and November 1944 and January 1945. In this connection the report points out that students in all states of the Union as well as the District of Columbia, Alaska, Hawaii and Puerto Rico have now adjusted their licensure legislation or practices so that graduates under the accelerated medical program will be

eligible for admission to licensure, at least for the duration of the emergency.

In the seventy-six approved medical schools and schools of the basic medical sciences in the United States there were in the academic year ending with the admission of the first class in 1943, 22,631 students studying medicine, an increase of 600 or 2.7 per cent above the preceding academic session. The enrolment increase in Canadian schools was 2.0 per cent. In addition there were 566 fifth year students in schools of the United States plus 403 fifth year and 219 sixth year students in Canada.

Regarding internships in civilian hospitals approved for intern training, the report points out that in January 1943 these institutions could accommodate 7,959 interns whereas only 5,567 actually were on duty, a shortage of 2,392 interns. It is emphasized that in the face of this shortage it is becoming increasingly important that hospitals cooperate in maintaining an equitable distribution of interns by limiting appointments to actual minimum needs. A shortage is also reported in the numbers available for residencies, assistant residencies and fellowships.

In an editorial on medical education in wartime, appearing in the same issue of *The Journal*, it is pointed out that "It is encouraging to note that the stress of the accelerated program has not prevented depleted faculties from a critical scrutiny of past performance and planning for means to improve the presentation of that most complex of subjects, man, in health and in disease.

"Problems of postwar adjustments in medicine deserve inclusion in the undergraduate curriculum of more schools. How, if at all, is the practice of medicine likely to be different from that of the past? How may we arrive at a sound evaluation of the innumerable plans and proposed laws for improved medical care projected by lay and medical groups? These and related questions are being asked by medical students everywhere. A knowledge of the facts and analysis of the factors, forces and mechanisms at work, and the application of the searching scientific spirit which is the foundation of medical education, may lead more promptly to workable and acceptable methods."

In another editorial on premedical education, *The Journal* says:

"Acceleration in medical schools does not involve any basic change except the elimination of the long summer vacations. A significant increase in weekly work by the student is not required. The premedical programs, however, shorten the program mainly by a weekly increase in the quantity of work carried by the student. . . .

"Whether or not students will be able to carry this heavy load remains to be seen. These students will, however, be free from financial worries and the necessity for outside employment. They will receive medical care, and more attention will be paid to the students' physical condition.

"The results of this experiment in concentrated premedical education will be watched with interest by all who are concerned with preprofessional education in every field, since it may offer a solution of the problem of reducing the long years of training required by the learned and scientific professions. . . ."

Discussing "The Supply of Physicians," *The Journal* says that "More than 4,000 seniors who entered the accelerated medical education program over a year ago are now well into their intern year and will complete that training before March 31, 1944. They will thus become available for military and civilian practice three months earlier than in normal times. Even half of these, should only that small proportion be commissioned, can care medically for over 300,000 troops. If this number of men is thereby enabled to enter active service three months early, before April of next year, the accelerated program will have justified itself in supplying the men required. . . ."

Postwar medical educational facilities are not being ignored. *The Journal* says that "Recognizing that large numbers of physicians will be seeking advanced training immediately after the war, the Council on Medical Education and Hospitals is making a careful study of the educational facilities in the graduate and postgraduate fields. A preliminary survey has already been instituted to determine what institutions and agencies will be able to expand their regular educational activities to meet additional postwar

needs. . . . The large number of physicians who return to civilian life will likewise find that the medical profession, the schools and the hospitals stand ready to meet the educational needs of the postwar period."

ABSORPTION DATA ON SOLVENTS WILL HELP INDUSTRY PROTECT WORKERS

Whether a new solvent used in a manufacturing process is largely absorbed (metabolized) by the body fluids and then eliminated principally through the urine like alcohol or is excreted by breath like ethyl ether should be determined and the rate of absorption and excretion defined, *The Journal of the American Medical Association* for May 22 advises in an editorial. "Such figures," *The Journal* says, "enable industry to set safe concentration limits in the air of workrooms, a point of the greatest importance in industrial medicine."

In its discussion of "Industrial Solvents," *The Journal* says:

"Most important in the field of industrial toxicology is the rapid development of new solvents for use in a variety of manufacturing processes. Many of these solvents were chemical curiosities a few years ago; now they are sold in carboy or even tank car lots. Inevitably the medical profession is consulted as to the possible harmful effects of using solvents and especially from breathing them.

"Possible dangers from the use of these new chemicals are appreciated by the chemical industry. Manufacturers often establish research fellowships or special contractual arrangements with universities such as Pennsylvania, Harvard and Cincinnati, with specially qualified institutions such as the Saranac Laboratories and the Industrial Hygiene Foundation and with private consultants. Some manufacturers have well equipped laboratories of their own and staffs of specialists whose sole work concerns the industrial toxicology of their own products. The industrial hygiene laboratories of the Public Health Services at Bethesda, Md., are publishing an ever increasing volume of fundamental researches on industrial toxicology which are of the utmost importance to industry.

"With this new information it is surprising that there has not been more interest in one of the fundamental problems of industrial toxicology — how much of some particular solvent is absorbed by a man exposed under definite conditions and how rapidly he excretes it when exposure ceases. . . .

"In the paper by R. W. McKee and others [in the May 22 issue of *The Journal*] analogous studies with carbon disulfide are described. . . . Carbon disulfide is absorbed largely by inhalation; the time required to produce saturation of the blood depends entirely on the concentration in the air breathed and is proportionally longer for higher air concentrations. The major part of the absorption of carbon disulfide at the low concentrations such as one encounters in industry takes place in the first thirty minutes, although complete saturation of all body tissues probably takes somewhat longer. Elimination by exhalation follows the same principles, but a considerable portion of the vapor is metabolized, which probably accounts for its recognized toxicity. . ."

IMPLANTING SULFONAMIDE POWDER IN CLEAN OPERATIVE WOUNDS

In view of the favorable results obtained in more than 600 consecutive cases which he reports in *The Journal of the American Medical Association* for August 7, J. Albert Key, M.D., St. Louis, says that "I believe that the practice of implanting sulfonamide powder in clean operative wounds should become routine in all civilian and military hospitals. This is especially true at this time when, owing to the emergency resulting from the war, so much surgery must be done under abnormal conditions and the incidence of operative infection may be expected to be unusually high."

PELVIC PAIN

A growing tumor, incarcerated in the pelvis, may produce pressure pain, as may small uterine fibromyomas, strategically situated. Non-adherent cysts and pedunculated fibromyomas, however, commonly rise from the pelvis with growth and may obtain huge proportions without causing more than mild sensations of weight and pressure. It is extremely doubtful that the freely, movable, normally sized retroverted uterus contributes much, if any, pressure pain.—*Mengert, South. M. J. April* '43.

PHYSICIANS ON STRIKE IN THE NETHERLANDS

Reliable sources reported on April 28 that when a number of Dutch physicians were placed in "detention" for issuing certificates declaring patients physically unfit for guard duty ordered after sabotage had taken place, their colleagues went on strike. All doctors suspended office hours, accepted only urgent cases for treatment, referred accident cases to the municipal authorities, had their wives inform patients that interference on the part of the authorities prevented the doctors from rendering medical assistance, and asked physicians in neighboring towns not to take their places. The release of the arrested doctors followed quickly.

In another instance a doctor was imprisoned for refusing to violate the medical code by giving information about a patient to a layman. The other doctors in town immediately posted the following notice: "No consulting hours. A colleague has been imprisoned because he rightly refused to inform an unauthorized outsider about the illness of a patient. As long as this illegal detention lasts, other physicians cannot practice." The doctor was released within two days.

The physicians have warned the mayors that they held the authorities responsible for endangering public health, that they accepted the release of their colleagues as meaning that there would be no repetition of such arrests, and that if there were new arrests these would not have the slightest effect on their professional attitude. The doctors have also agreed not to fill out any forms, however innocent the source might appear, if these seemed likely to aid the authorities in collecting data about physicians.

The Stockholm *Svenska Dagbladet* reported that more than 4,000 physicians, or 97 per cent of the membership, stopped practicing rather than become members of the Dutch Nazi Physicians Chamber. When, however, dues for the organization were deducted from fees owed them by the health insurance funds, the physicians countered by refusing to perform any services for the funds. The German authorities answered by threatening to impose heavy fines on those failing to treat patients sent by the funds, but physicians removed their name plates and suspended all practice save for treatment of emergency cases. Eventually the authorities were compelled to allow the doctors to practice without membership in the Physicians Chamber.

In March issue of the Netherlands underground paper, a physician described the attempts of German authorities to nazify the physicians:

"Soon after the occupation of the Netherlands German 'specialists' on organization of the medical profession were sent into the country to advise Dutch Nazis on use of existing medical societies as vehicles for infiltrating the profession with national socialist medical doctrines. The executive committee of the Netherlands Medical Society used every possible means to preserve the integrity of the organization, and when they realized that Nazi control could no longer be avoided, they resigned. Local branches of the society immediately declared their independence of the national organization, which consequently folded up. The Dutch Nazi Party then instituted a 'Physicians Chamber,' proclaiming every Dutch doctor automatically a member. The immediate reaction was that a number of prominent physicians contacted trusted colleagues throughout the country for the purpose of frustrating the Nazis' designs. Their first step was to send a letter to Reichs Commissioner Arthur Seyss-Inquart telling him that the medical profession would have no dealings with the Physicians Chamber or its works. The Germans proceeded with the organization of the chamber and declared every licensed practitioner a member. The chamber continues as more of an irritation than a functioning entity, as it is largely ignored by the physicians."

The sergeant had his troubles with one of the new recruits. The more the sergeant shouted at him the more blandly unconcerned was the recruit.

"Doesn't anything I say make any difference?" demanded the sergeant.

"No," said the recruit. "I was a baseball umpire in civil life."

—*Christian Science Monitor.*

"Mother, may I keep a diary?"

"Of course."

"And may I do the things to write in it?"

—*Meccano Magazine.*

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

Lt. Henry B. Okner has recently been awarded the medal of the purple heart. He was wounded in line of duty when his ambulance struck a land mine. He was stationed in Northern Ireland for six months and was then sent to Northern Africa where he saw active combat duty serving with a reconnaissance unit in the African campaign.

The Peoria Medical Society in an effort to keep in close touch with those of its members who are serving their country at home and abroad, have begun a "Service Department" in their monthly publication, PEORIA MEDICAL NEWS.

The Project Manager of the War Manpower Commission, National Youth Administration at Mattoon has sent the following message to the Educational Committee — "Periodically we have been receiving your fine duplicated bulletin regarding common maladies and diseases. This has served to enlighten hundreds of boys who have lived in residence here during their training in War Production Training.

"However, with the closing of the National Youth Administration nationally, this Center too, has been closed, and we are therefore writing to ask that the mailing of this bulletin be discontinued. Thank you sincerely for this fine service which you have extended to us."

MARRIAGES

First Lt. Leon S. Eisenman, formerly of Chicago, to Miss Ida Sibyl Weinstein of Old Orchard Beach, Maine and St. Augustine, Fla.

Joseph W. Krystosek to Miss Josephine Lobacz, both of Chicago, July 11.

DEATHS

Samuel C. Beach, Chicago; Rush Medical College, 1892. Was consultant and industrial medical inspector of the Division of Industrial Hygiene of Illinois. Died July 7, 1943 at the age of 73.

Harry S. Bossart, Buckley; Jefferson Medical College of Philadelphia, 1886. Practiced medicine in Buckley for over 50 years. Was mayor for 26 years. Died August 15, 1943 at the age of 78.

Abe A. Hyman, formerly of Chicago; Loyola University School of Medicine, 1938. Killed in an accident while serving in the armed forces.

John William Krohn, Joliet; Hahnemann Medical College and Hospital, 1912. Served as a captain in World War I. Died of pnuemonia August 21, 1943, at the age of 52.

Gustav Liebrecht, Chicago; National Medical University, Chicago, 1906. Died July 26, 1943 at the age of 72.

Richard J. O'Connell, Chicago; Rush Medical College, 1899, associate in medicine at Loyola University School of Medicine from 1917 to 1924. On staff of West Side and St. Francis' Hospitals. Died August 22, 1943 at the age of 73.

Charles H. Reinhart, Chicago; University of Illinois College of Medicine, 1915. Died July 25, 1943 at the age of 52.

Francis M. Roberts, Jacksonville; Cincinnati College of Medicine and Surgery, 1900. Superintendent of Oaklawn Sanatorium for two years. Had practiced medicine in Morgan County for 43 years. Died August 6, 1943 at Passavant Memorial Hospital, at the age of 73.

John W. Robertson, Coulterville; Beaumont Medical College, St. Louis, 1889. Was a member of the "Fifty Year Club" of the Illinois State Medical Society. Killed when his automobile was hit by a train July 26, 1943 at the age of 83.

BELIEVE SODIUM CARBONATE SHOULD BE GIVEN WHEN SULFADIAZINE IS USED

The findings of laboratory and clinical studies made by Dorothy Rourke Gilligan, M.S.; Solomon Garb, A.B.; Charles Wheeler, M.D., and Major Norman Plummer, M.C., A.U.S., New York, lead them to report in *The Journal of the American Medical Association* for August 21 that kidney damage and obstruction of the urinary tract as a result of treatment with sulfadiazine and acetylsulfadiazine are preventable by means of alkali treatment sufficient to maintain the urine neutral or slightly alkaline. They believe that sodium bicarbonate should be prescribed whenever sulfadiazine is administered.

NEW DISEASE ENTITY REPORTED BY 3 ARMY MEDICAL OFFICERS

Bullis Fever Apparently Is Transmitted By The Lone Star Tick; Is Self Limited In Most Cases And Confers Immunity

A new disease entity heretofore undescribed, which they term Bullis fever, apparently transmitted by a tick, is reported in *The Journal of the American Medical Association* for August 21 by Colonel John C. Woodland, Major Mordecai M. McDowell and Captain John T. Richards, Medical Corps, Army of the United States.

The disease was first recognized in the spring and summer of 1942 at the Brooke General Hospital, Fort Sam Houston, Texas. It is self limited in most instances and apparently confers immunity on those contracting it, since no recurrences have been observed.

The onset of the disease usually was abrupt with an initial chill or chilly sensation ushering in the attack. Fever soon followed. A great majority of the men complained of headache. There was a pronounced lassitude, prostration, loss of appetite and general weakness during the fever stage of the disease and a few patients were nauseated and vomited. The fever lasted from four to fourteen days and in the average case the temperature was elevated for a little over five days. Convalescence was protracted, especially if the illness had been severe. There was loss of weight in a great many of the men. In the more severe forms of the disease a rash, resembling German measles and at times typhus, made its appearance early in the disease but disappeared within forty-eight hours. In about 10 per cent of the cases skin manifestations developed. From clinical observation, the authors report, it is apparent that the incubation period of the disease is from seven to ten days.

The disease resembles in some respects cases of Colorado tick fever but also might be confused with other disease conditions, such as malaria.

All of the men in the cases reported by the authors gave a history of repeated and prolonged exposure to bites by a tick commonly known as the Lone Star tick, so named because of the star shaped mark on its back. Although no positive evidence of the association of bites by the Lone Star tick with this disease has been established, the authors say, it is their opinion that further laboratory investigation will prove that this disease is transmitted to man through the tick bite.

Glasses, if properly fitted and adjusted, never create any defect or weakness of the eyes or cause the muscles to deteriorate from nonuse, the late John Oliver McReynolds, M.D., Dallas, Texas, contends in *Hygeia, The Health Magazine.* "They simply supply the deficiency already existing, and the muscles still have their normal work to do," he says.

Now more than at any other time, because of the pressure of work, longer hours, and crowded and unsatisfactory living conditions, there is reason for extra precaution so far as tuberculous infection is concerned, both in large and small industries. Many individuals will have to be employed whose health is sub-standard and who should be considered more susceptible to such infection. Therefore, there should be more effort made to extend and maintain proper health supervision, especially in regard to the detection and control of tuberculosis. W. A. Sawyer, M.D., N.Y.S. Jour. of Med., Jan. 15, 1943.

Early detection of tuberculosis is not enough. There must be adequate institutional accommodation for those who need it; reasonable maintenance for the family whose wage-earner is undergoing treatment and a wisely planned scheme of rehabilitation are recognized as an essential part of treatment itself. Sir Wilson Jameson. Lancet. Oct. 24, 1942.

Children have more need of models than of critics. — Joubert.

P. R. N.

The Jocular Jingles of C. G. F.

by

Charles G. Farnum M. D.

Peoria, Ill.

SEASONABLE SONNETS
SEPTEMBER

With gorgeous days and night so keen and cool
September makes our life again worth while;
With halting step the children trudge to school,
While we with autumn zest can work and smile.
The great misnomer, Labor Day, is here,
When no one works — in keeping with the times;
Red sprigs of sumac here and there appear,
Birds migrate now in flocks to southers climes,
To campuses the college youth return,
The chosen ones to drink from learning's cup;
But minds are less intent on what they learn
Than how the back field squad is shaping up.
Though days are warm each evening brings its chills
With thoughts of winter clothes and fuel bills.

The Prayer of the Ancient Golfer

I do not ask for energy of youth,
For long straight shots and graceful rhythmic swing,
I'll be content with ancient ways uncouth
And take whatever awkward methods bring.

I do not ask to shoot the course in fours,
I'm willing to be mediocre — but,
I pray, ye gods of all the great out doors,
For just one afternoon when I can putt.

Here Comes The Groom

On last Thursday evening Mr. Oscar Willie Cox, eldest son of Mr. and Mrs. James Cox of Main Street, bridegroom of Miss Norma Brown at one of the largest and most exclusive social gatherings in the history of our community.

The bridegroom was charmingly clad in a dark, three-piece ensemble consisting of coat, pants and vest.

The coat of this dark material was tastefully gathered under the arms and draped over the shoulders, falling in simple lines to the hips. It is whispered that this coat is an heirloom in the family having been worn by his father and his grandfather on their wedding days.

The vest was sleeveless and met in front, held by buttons of the same color. It was gracefully fashioned with four pockets and drawn in by a strap and buckle at the back.

The groom's pants were of the same dark material and were suspended from the waist, falling in straight lines almost to the floor. The severe simplicity of the garment was relieved by the right trouser cuff which was caught up by the Boston garter worn underneath, revealing a brown sock above a shoe of black calf skin laced with strings of the same color. The effect was quite chic.

His neck was encircled by white collar with long points and a delicate saw edge which had a tendency to intensify the contrast between its snowy whiteness and his mahogany complexion. The sleeves were worn long, exposing about four inches of cuff. Around the collar a cravat was knotted loosely and in such a manner that it rode upward in the general direction of the left ear.

He wore his hair parted on the left side and all was held severely in place by hair-gloss except for an aigrette effect at the rear end of the part. This gave a naiveness to his coiffure that was delightful. Mr. Cox wore no hat at the ceremony.

Miss Brown wore the conventional white.

Anon.

PATHOLOGICAL SONNETS
HAY FEVER

The summer flowers are blooming on the hills,
On roadsides grass and weeds have reached their prime;
The wayside vegetation wholly fills
The atmosphere with pollen is a crime.
Therefrom my eyes become a firey red,
My weeping interspersed with vicious sneeze.
I have a leaky nose and aching head
From molds and pollen wafted by the breeze.
I cough without cessation through the night.
I weep and blow and wheeze. 'Tis worse than pain.
I hoped desensitizing hypos might
Bring some relief. The hope was all in vain.
The most effective treatment is to pray
For killing frosts to freeze the thing away.

We are told of the poor and downtrodden,
As each pleas for his place in the sun,
And we thrill with a keen satisfaction
When a thing of that sort has been done.

For a place in the sun is a birthright,
Such a place for each one should be made;
But when temperatures soar in the hundreds,
You can give me a place in the shade.

Professor Paresis meekly reminds us that today is the tomorrow that we worried about yesterday.

FULL SPEED AHEAD...



or SLOW AND STEADY

CORAMINE is so well known for its dramatic and prompt resuscitating action in emergencies that many physicians may forget its value as a steady and prolonged stimulant of vital centres . . . in selected heart conditions, infectious and other diseases.

Numerous clinicians are corroborated by a recent reference to *CORAMINE** as "a powerful respiratory stimulant" with effects on the heart and peripheral vessels well established.[1] It has been termed definitely superior to caffein sodium benzoate.[2]

CORAMINE is an original product of Ciba Laboratories, manufactured solely by Ciba and easily identified as the genuine by its crystal-white clarity. Millions of ampuls have been used by the profession in the U. S. in accident cases, Surgery, Asphyxia, Pneumonia, Cardiac Failure and Drug Coma. Its military employment is widespread.

[1] Barr, P. B. Modern Medical Therapy in General Practice. The Williams & Wilkins Company, 1940

[2] Surgical Practice of the Lahey Clinic, page 792, 1942

CORAMINE

STIMULANT OF VITAL CENTRES

*Trade Mark Reg. U. S. Pat. Off.

CIBA *Pharmaceutical Products, Inc.*

SUMMIT, NEW JERSEY

Warrior

THE military doctor of World War II – unarmed yet unafraid – moves up shoulder to shoulder with the combat troops. Bayonet charge . . . parachute landing . . . beach-storming from raiding barges . . . constantly, the medical officer proves that he is every inch a fighting man.

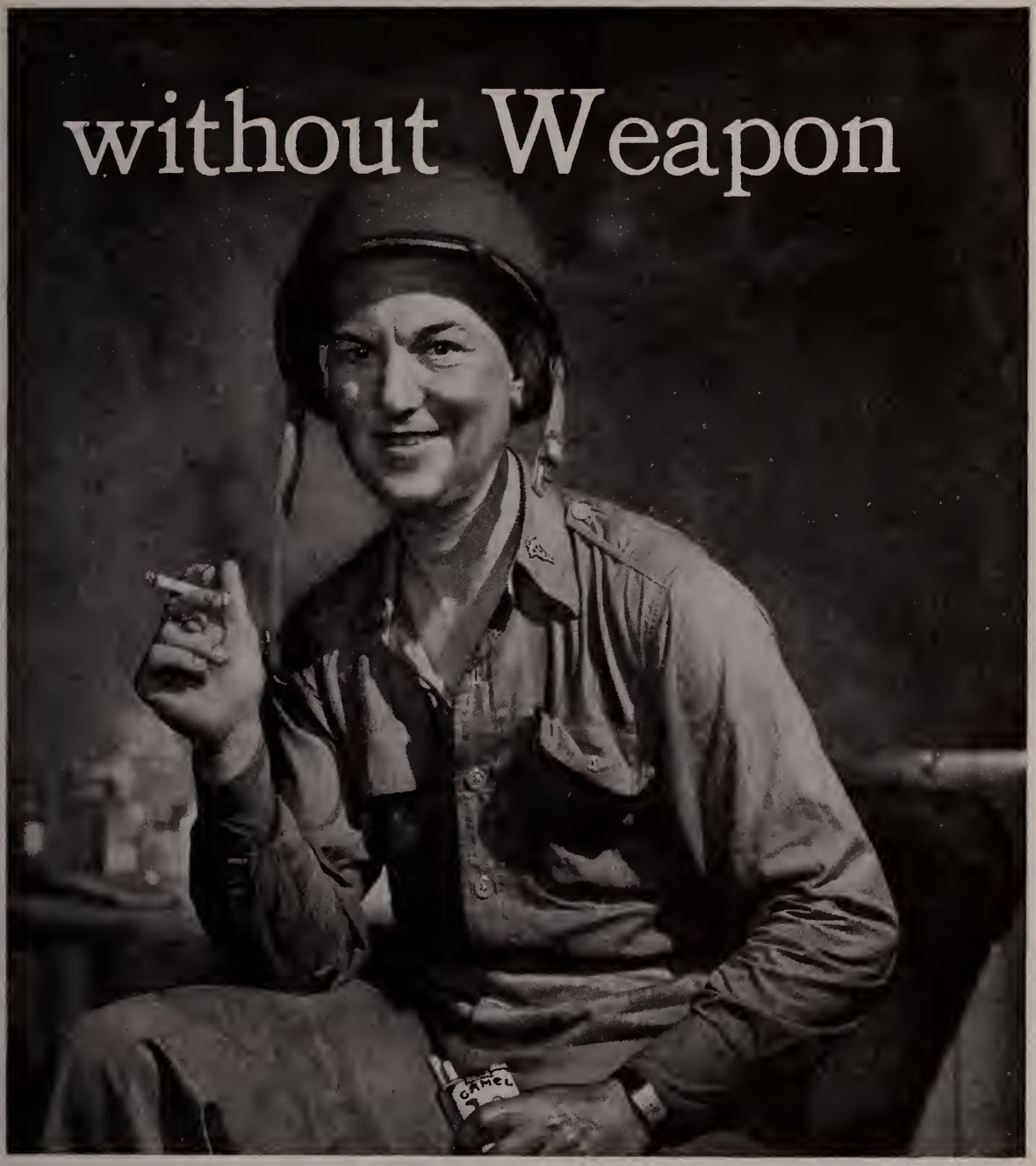
More than likely, he's a Camel smoker, too, for Camel's mellow mildness and smooth, comforting flavor quickly won it first choice in the armed forces.*

Planning a gift for someone in service? Make it Camels . . . a carton . . . the *thoughtful* remembrance.



BUY WAR BONDS STAMPS

Camel

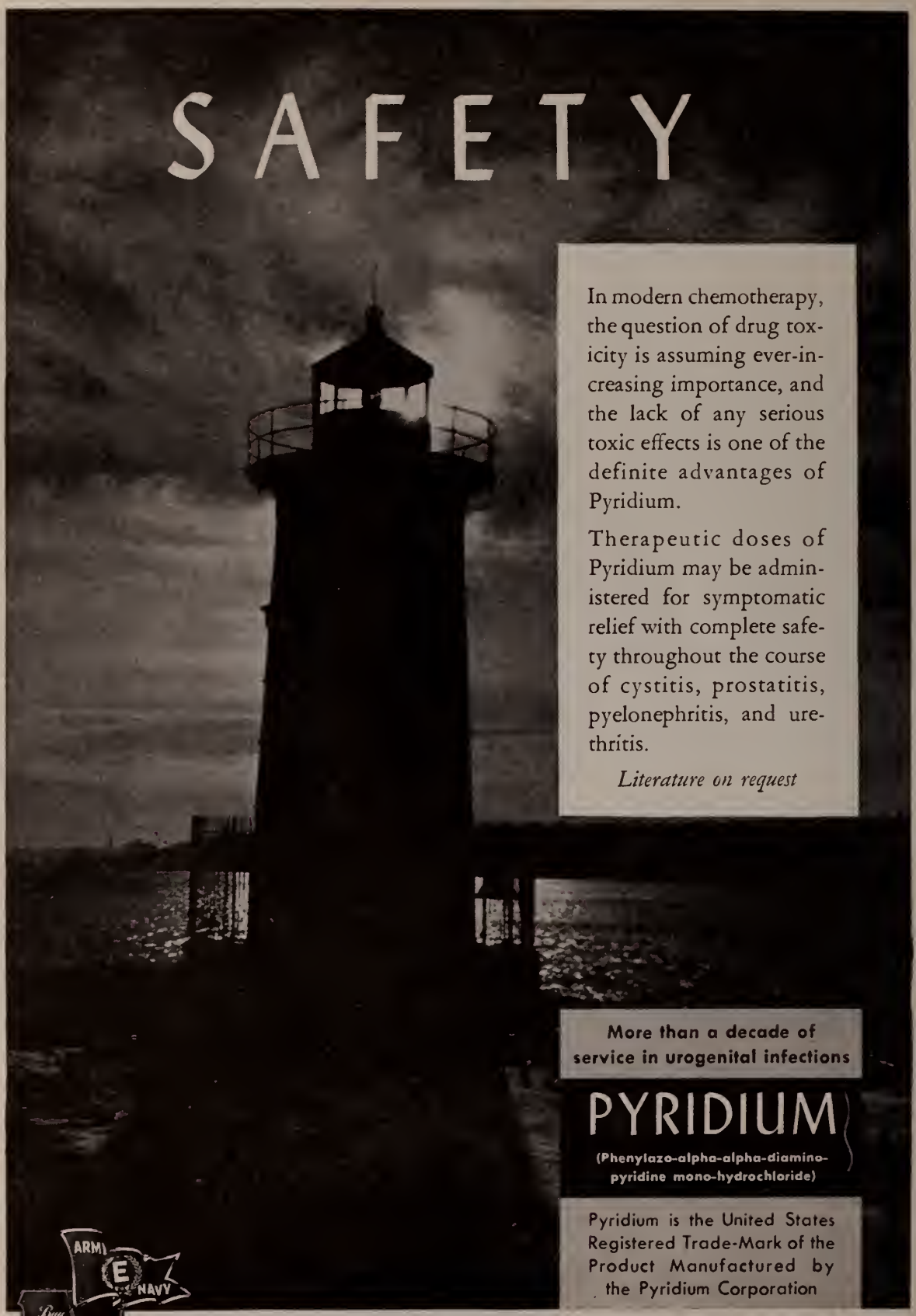


1st in the Service

*With men in the Army, the Navy, the Marine Corps, and the Coast Guard, the favorite cigarette is Camel. (Based on actual sales records.)

New reprints available on cigarette research—Archives of Otolaryngology, February, 1943, pp. 169-173—March, 1943, pp. 404-410. Camel Cigarettes, Medical Relations Division, One Pershing Square, New York 17, N. Y.

— Costlier Tobaccos



In modern chemotherapy, the question of drug toxicity is assuming ever-increasing importance, and the lack of any serious toxic effects is one of the definite advantages of Pyridium.

Therapeutic doses of Pyridium may be administered for symptomatic relief with complete safety throughout the course of cystitis, prostatitis, pyelonephritis, and urethritis.

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ARMY E NAVY

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Book Reviews

Principles of Extraperitoneal Caesarean Section. First Edition, Ricci and Marr. By James V. Ricci, A. B., M. D., Associate Clinical Professor of Gynaecology and Obstetrics, New Pork Medical College; Attending Gynaecologist, New York City Hospital; Associate Attending Gynaecologist and Obstetrician, Flower and Fifth Avenue Hospitals; Consulting Gynaecologist and Obstetrician, Down Town Hospital; Fellow New York Academy of Medicine, and James Pratt Marr, M.D., F.A.C. S., Associate Attending Surgeon, Woman's Hospital in the State of New York; Adjunct Professor of Obstetrics and Gynecology, New York Polyclinic Hospital; Diplomate American Board of Obstetrics and Gynecology; Fellow New York Academy of Medicine. The Blakiston Company, Philadelphia, 1942. Price $4.50.

The authors deal with the whole subject of cesarean section, not only as one might assume from the title with extraperitoneal section. A rather comprehensive historical review of the operation starting with Osiander (1759-1822) and bringing the subject up to date with the Waters technique. The advantages claimed for the different techniques by the proponents of the several methods in use are clearly set forth and evaluated by the authors. The Physick-Sellheim, Latzko, Veit, Frank and Rustner operations of the older school and the Monroe Kerr, Beck, Hirst, DeLee and Waters of the more modern writers on the subject.

There is a very thorough discussion of the anatomy and histology of the lower uterine segment and the fascias associated therewith. Also, the relationships of the endopelvic fascia layers to the bladder and the significance of these anatomical relationships as regards the technical steps involved in performing he extraperitoneal cesarean section.

There is also an interesting chapter on the incisions used in extraperitoneal cesarean section together with the scars of the lower uterine segment operation and their healing scars. The subsequent ruptures in some of these cases are considered and causes evaluated. The question of wound infections and their drainage is fully discussed.

The surgical techniques of the several types of extraperitoneal cesarean section are thoroughly discussed and the Latzko and Waters modification of the Physick-Sellheim operation are illustrated as well as Ricci's modification of the Sellheim operation.

Complications and their management are discussed in a final chapter.

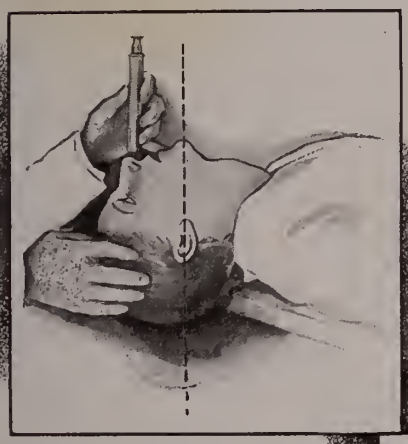
It is a book filled with information about cesarean section in very readable form. The authors are admittedly prejudiced in favor of extraperitoneal cesarean section, and present the advantages of the operation in excellent fashion. One interested in obstetrics should have this book for reference. F.H.F.

Treatment of Fractures: By Guy A. Caldwell, M.D., F.A.C.S., Professor of Orthopedic Surgery, Tulane University of Louisiana School of Medicine; Senior Visiting Orthopedic Surgeon, Touro Infirmary; Visiting Surgeon, Charity Hospital of Louisiana; Director, Section on Bone and Joint Surgery, Ochsner

(Continued on page 40)

TECHNIC OF LIPIODOL INSTILLATION

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BY means of Lipiodol—iodized poppyseed oil containing 40 per cent iodine in chemical combination—visualization of the paranasal sinuses, deviations from normal not otherwise detectable can be seen at a glance. Granulations, polyps, cysts, tumors, encapsulated pus pockets, and mucous membrane thickening are easily discernible. The frontal, ethmoid, sphenoid, and maxillary sinuses are readily filled and visualized, affording a dependable guide to conservative therapy and to operative manipulation.

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The antrum is usually accessible through the natural ostium after preliminary mucous membrane shrinkage. If complete filling of the sinus is desired, the needle must be smaller than the ostium and the head must be tilted in order to permit the entrapped air to escape.



In visualization of the frontal sinuses, a curved needle is needed to enter the natural foramen. Local anesthesia and mucous membrane shrinkage are necessary. Accessory holes along the needle shaft are advisable in the event the end of the needle becomes impacted against the opposite bony wall.

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BOOK REVIEWS (Continued)

Clinic, New Orleans. With 92 Illustrations. Paul B. Hoeber, Inc. Medical Book Department of Harper & Brothers, New York and London. Price $5.00.

It is most fitting in time of war that more books on this subject are brought out for the information of those men who previously paid but little attention to the treament of fractures. Now during the present emergency with many physicians in service, these men must be ready to deal with any type of emergency which comes along.

The author in this book has eliminated many of the basic facts concerning fractures which are generally known to all physicians and has devoted all space to a consideration of treatment. Proper consideration is given to the treatment of simple fractures with special emphasis on the care of the individual case, the reduction of the deformity, and the use of immobilizing appliances.

In the section dealing with treatment of compound fractures, first aid and transportation problems are outlined first, then the various methods of treating open wounds through the use of chemotherapeutic agents internally and locally. In outlining treatment of individual types of fractures beginning with the hand, then the arm, shoulder, chest, pelvis, hip and lower extremities, all are considered in much detail.

Although a small book, quite a little information relative to the operative treatment of fractures is presented. The illustrations are numerous and well adapted to the subject at hand.

The book is well written and should be of interest to many who desire up to the minute information on a present day popular subject.

The Anatomy of the Nervous System. By Stephen Walter Ranson, M.D., Ph.D., Formerly Professor of Neurology and Director of Neurological Institute, Northwestern University Medical School, Chicago. Seventh Edition, Revised. 520 pages with 408 illustrations some of them in colors. Philadelphia and London: W. B. Saunders Company, 1943. Price $6.50.

This is the seventh edition of what has been a highly popular book first published in 1920. The edition represents the latest thoughts of the author whose death preceded the publication of the book, although fortunately the revision was completed and in the hands of the publishers before his death.

Nervous anatomy has long been one of the difficult subjects for the average medical student as well as the general practitioner as it requires much study and thought on the part of the reader-student, and is more difficult to retain than many other subjects. Dr. Ranson has long endeavored to give the elements of the anatomy of the nervous system in such a way as to appeal to the student. In keeping with his general belief such a book must be well illustrated and the illustrations must be clear and show specifically in graph form the actual impression he desires to have the student retain.

In this latest volume more attention has been given to the physiological principles involved, and the many sections of the book have been liberally revised. Research in its constant endeavor to solve many of the former hidden mysteries of the human anatomy and body functions, constantly brings out more information on the functions of the nervous system, and these are stressed in the volume.

Although originally intended for the student, the book has long been popular with the members of the medical profession who have had the desire to refresh their memories on the subject, and with the unusually fine illustrations, this may be done with a minimum loss of time and effort.

Once more Dr. Ranson has done an outstanding piece of work and the book will remain for a long time to come, a fitting memorial to a man who has done much to bring the subject into a clear and concise form to the medical reader.

How to Learn and Advance. By Samuel Kahn, M.D., Ph.D., Formerly on the Faculties of Georgetown and New York Universities; Chief Psychiatrist, U. S. Induction Boards for the States of New Jersey and Delaware; Author of "Sing Sing Criminals," "Psychological and Neurological Definitions," etc. The Alpha Press, New York. 1942. Price $2.00.

Choosing a career is a serious problem for many of the modern young people, and this book is intended primarily to give them facts and data which will be of help in making many important decisions, and to better prepare them for the

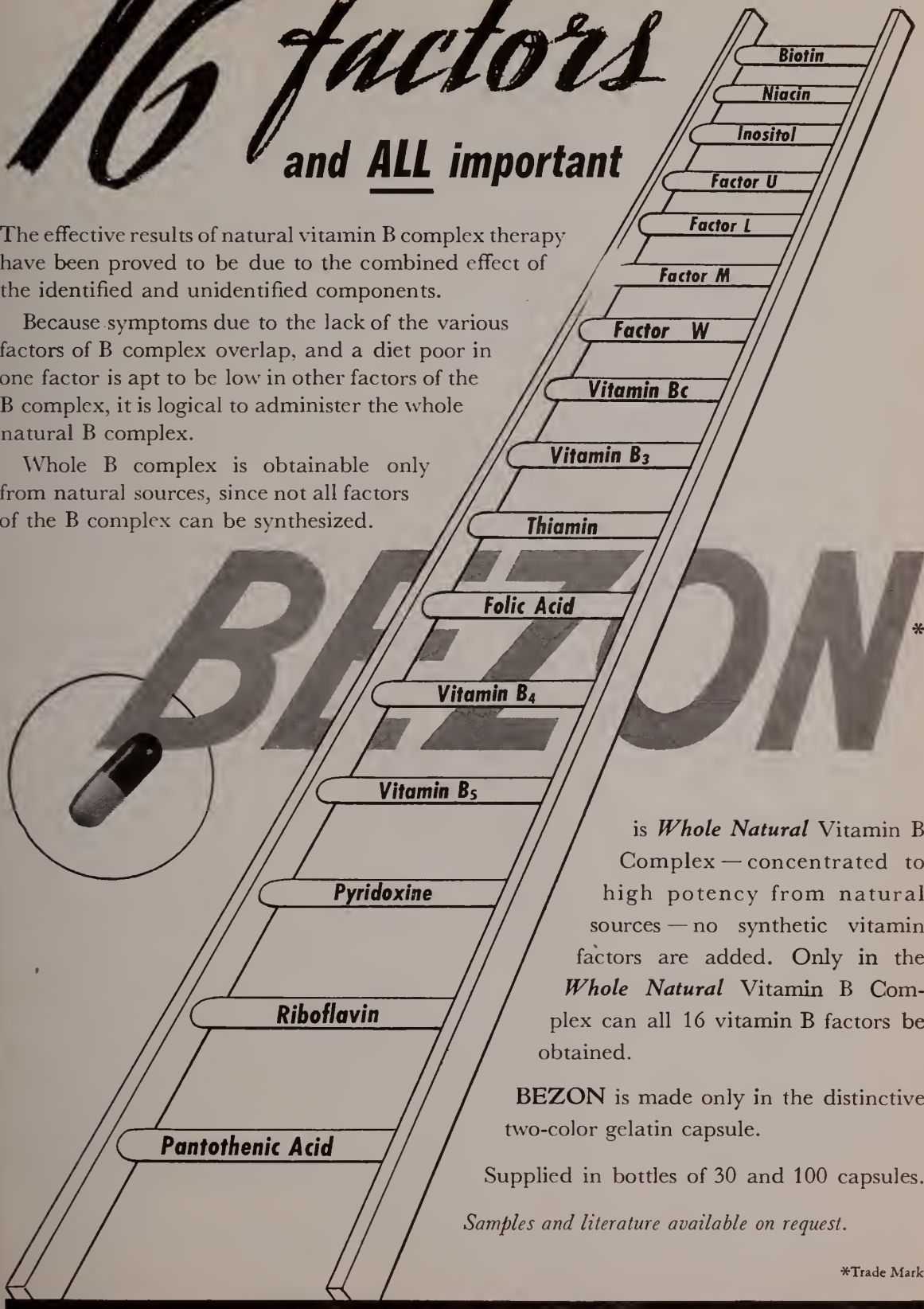
(Continued on page 42)

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BOOK REVIEWS (Continued)

course they plan to follow. Many of their problems are thoroughly discussed.

The first chapter is devoted to the subject, "How to Take Good Notes," giving information which should be of value to most students, as it is a well known fact that of the more important study ideas, note taking and subsequent proper utilization of these notes, is of greatest importance. It is fortunate in his chapter that the word "good" appears, for it is generally known that there are many types of notes which may be classified according to their subsequent value to the student taking them.

The second chapter, "How to Use a Library" is likewise a fundamental one and much information is given to the student so that he may utilize his advantages to the greatest extent possible. Knowledge concerning important reference material in libraries is essential to its proper use, and in most modern libraries it is relatively easy to determine which books and references will give the most information on the subject being reviewed.

How to study is given its proper consideration, showing the difficulty in studying if one is not properly trained for the purpose. The art of proper concentration is taught so that the reader can memorize and remember by devolping within his own mind, certain keys which will be retained indefinitely.

The book should be of much interest to those who do not know how to apply themselves to the best advantage to the task at hand. It is well written, elementary in many parts, yet it should be of much value not only to the poor, or mediocre student, but it should also help others materially as they will most often give the various subjects outlined, careful consideration.

Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

GERIATRIC MEDICINE. Diagnosis and Management of Disease in the Aging and in the Aged. Edited by Edward J. Stieglitz, M.S., M.D., F.A.C.P., Consultant in Gerontology, National Institute of Health; Visiting Physician, Medical Service, Baltimore City Hospital; Attending Physician, Washington Home for Incurables, Washington, D. C. Illustrated. W. B. Saunders Company, Philadelphia and London, 1943.

A SYNOPSIS OF CLINICAL SYPHILIS. By James Kirby Howles, B.S., M.D., M.M.S., Professor of Dermatology and Syphilology, and Director of the Department, Louisiana State University School of Medicine; Senior Visiting Physician, Charity Hospital of Louisiana at New Orleans; Visiting Physician, French Hospital, Mercy Hospital, Hotel Dieu, Southern Baptist Hospital and Touro Infirmary. With 121 text illustrations and 2 color plates. The C. V. Mosby Company, St. Louis. 1943. Price $6.00.

METHODS OF TREATMENT. By Logan Clendening, M.D., Clinical Professor of Medicine, Medical Department of the University of Kansas; Attending Physician, University of Kansas Hospitals, and Edward H. Hashinger, A.B., M.D., Clinical Professor of Medicine, Medical Department of the University of Kansas; Attending Physician, University of Kansas Hospitals; Attending Physician, St. Luke's Hospital, Kansas City, Mo. With chapters on special subjects by J. B. Cowherd, M.D.; Leland F. Glaser, M.D.; Thomas B. Hall, M.D.; John S. Knight, M.D.; H. P. Kuhn, M.D.; Paul H. Lorhan, M.D.; F. C. Neff, M.D.; Don Carlos Peete, M.D.; Carl O. Rickter, M.D.; E. H. Skinner, M.C.; O. R. Withers, M.D.; and Lawrence E. Wood, M.D. Eighth Edition. The C. V. Mosby Company, St. Louis, 1943. Price $10.00.

MEDICAL MALPRACTICE. By Louis J. Regan, M.D., LLB., Member State Bar of California. The C. V. Mosby Company, St. Louis, 1943. Price $5.00.

AN ATLAS OF ANATOMY. In Two Volumes. By J. C. Boileau Grant, M.C., M.B., Ch.B., F.R. C.S. (Edin.) Professor of Anatomy in the

(Continued on page 44)



IN THE PROBLEM OF *Dietary Management*

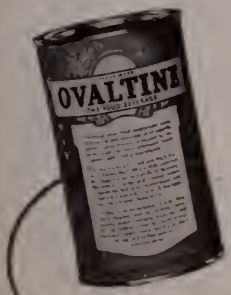
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CARBOHYDRATE	30.00 Gm.	66.00 Gm.	VITAMIN A	1500 U.S.P.U.	2953 U.S.P.U.
FAT	3.15 Gm.	31.5 Gm.	VITAMIN D	405 U.S.P.U.	432 U.S.P.U.
CALCIUM	0.25 Gm.	1.05 Gm.	VITAMIN B_1	300 U.S.P.U.	432 U.S.P.U.
PHOSPHORUS	0.25 Gm.	0.903 Gm.	RIBOFLAVIN	0.25 mg.	1.28 mg.
IRON	10.5 mg.	11.9 mg.	NIACIN	4.95 mg.	7.1 mg.

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BOOKS RECEIVED (Continued)

University of Toronto. Volume I. Upper Limb, Abdomen, Perineum, Pelvis and Lower Limb. The Williams and Wilkins Company, Baltimore. 1943. Price $5.00.

COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION: Edited by Richard M. Hewitt, B.A., M.A., M.D.; A. B. Nevling, M.D.; John R. Miner, B.A., Sc.D.; James R. Eckman, A.B.; and M. Katharine Smith, B.A. Volume XXXIV - 1942. 999 pages with 176 illustrations. W. B. Saunders Company, 1943. Philadelphia and London. Price $11.00.

THE PRINCIPLES AND PRACTICE OF INDUSTRIAL MEDICINE. Edited by Fred J. Wampler, M.D., Professor, Preventive and Industrial Medicine, Medical College of Virginia. The Williams & Wilkins Company, 1943, Baltimore. Price $6.00.

REHABILITATION OF THE WAR INJURED. A Symposium. Edited by William Brown Doherty, M.D., and Dagobert D. Runes, Ph. D. Philosophical Library, New York. Price $10.00.

THE MEDICAL CLINICS OF NORTH AMERICA. Mayo Clinic Number. W. B. Saunders Company, Philadelphia and London, 1943.

HANDBOOK OF TROPICAL MEDICINE. By Alfred C. Reed, M.D., Associate Clinical Professor of Medicine, Stanford University School of Medicine; and J. C. Geiger, M.D., Director of Public Health, San Francisco, California. Stanford University Press, Stanford University, California. London: Humphrey Milford, Oxford University Press. 1943. Price $1.50.

ORAL DIAGNOSIS (Second Edition) By Kurt H. Thoma, D.M.D., Professor of Oral Surgery and Brackett Professor of Oral Pathology, Harvard University; Oral Surgeon and Chief of Dental Service, Massachusetts General Hospital; Oral Surgeon, Brooks Hospital; Dental Surgeon, Dental Department, Consultant in Oral Surgery, Tumor Department, Boston Dispensary and Joseph H. Pratt Diagnostic Hospital; Consulting Oral Surgeon, New England Baptist Hospital; and Consulting Oral Surgeon, Beth Israel Hospital. Second Edition, Revised. 495 Pages with 666 illustrations, 63 in colors. Philadelphia and London: W. B. Saunders Company, 1943. Price $6.75.

(Continued on page 46)

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Helps stimulate peristaltic muscles.

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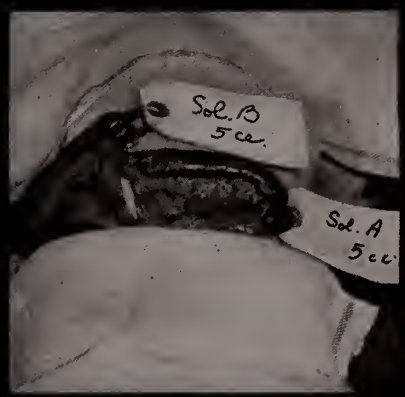
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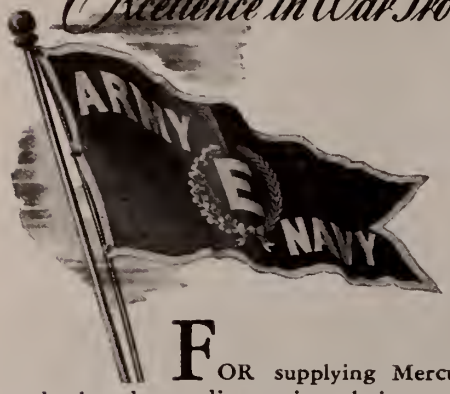
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BALTIMORE, MARYLAND

BOOKS RECEIVED (Continued)

INTRODUCTION TO SOCIOLOGY AND SOCIAL PROBLEMS (Second Edition) By Deborah MacLurg Jensen, R.N., B.Ds., M.A., Instructor in Sociology and Social Problems at Schools of Nursing of St. Louis City Hospital and St. Luke's Hospital; Lecturer in Nursing Education, Washington University; Formerly Social Service Consultant to the Visiting Nurse Association, St. Louis. 420 pages. Illustrated. C. V. Mosby Company, St. Louis, Missouri. 1943. Price $3.25.

SELF-TEACHING TESTS IN ARITHMETIC FOR NURSES. By Ruth W. Jessee, R. N., M. A., Instructor in Science, Bridgeport Hospital, Bridgeport, Connecticut. 111 pages. The C. V. Mosby Company, St. Louis, Missouri. Price $1.50.

RECONSTRUCTIVE SURGERY OF THE EYELIDS By Wendell L. Hughes, M.D., F.A.C.S., Hempstead, New York. Illustrated. 160 pages. The C. V. Mosby Company, St. Louis, Missouri. Price $4.00.

SYNCOPE IN BLOOD DONORS

FAITH C. POLES, M.B., AND MURIEL BOYCOTT, M.B.

Fatigue and fasting are principal factors

When a donor faints after being bled, the circumstance is of no serious consequence, but accidents may happen, time and space at the disposal of the operator are wasted and the event may influence others against the giving of blood. From the handling of about 100,000 blood donors a year, Faith C. Poles, M.B., and Muriel Boycott, M.B., of the Army Blood Transfusion Service, London, have tried to find out what particular type of donor is apt to faint and why he does so.

Pallor and generalized sweating are the most common signs, but pallor alone is not a reliable guide to the condition of the donor or of the status of his blood pressure. The blood pressure becomes lowered, the pulse slow, often imperceptible, breathing is slow and shallow. Loss of consciousness occurs in about 1 in 4 cases, the duration being momentary or prolonged, and sometimes associated with dilated pupils and stertorous breathing. Prodromal symptoms usu-

(Continued on page 48)



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BLOOD DONORS (Continued)

ally consist of a generalized feeling of heat, nausea, or epigastric discomfort. Vomiting is not common.

There is no apparent relation between fainting and humidity or room temperature. No significant difference in the incidence of syncope is noted between males and females. The rate of withdrawal of blood had no effect when the amount of blood drawn was 540 cc. or less, although the incidence of fainting is increased where the amount of blood withdrawn is over 440 cc.

The faint rate is higher among donors bled for the first time. Anemia and body form (obesity) had no apparent relation to fainting. The surface area of the body, which is a rough guide to blood volume, was found to be significantly smaller for fainters than for non-fainters.

Fatigue seems to be an important factor since it may cause a depression of blood pressure. The number of faints is found to be greater if the time from the last meal is four and one-half hours or longer.

The initial blood pressure is no guide to the likelihood of fainting. A drop of 7% in blood pressure usually occurs immediately after bleeding, but those who had immediate faints showed a mean percentage fall of 30.5. However, those donors who had delayed faints did not have an immediate unusual fall in blood pressure. Fall in blood pressure and cardiac slowing appear to start simultaneously and follow a parallel course, but in delayed faints the blood pressure often fell and the pulse remained normal. Some persons normally have orthostatic fall in blood pressure but delayed fainting was not confined to these cases.

Administration of 1 litter of normal saline two to four hours before bleeding donors from hot shops and foundries resulted in a definite decrease in the number of faints, although the blood pressure fall still occurred and it was evident that the decrease was not due to rapid replacement of the blood volume. The faint rate was not reduced by oral administration of 50 Gm. of glucose before bleeding. The procedure finally adopted to prevent the possibility of syn-

(Continued on page 50)

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BLOOD DONORS (Continued)

cope after bleeding was: for those excessively tired and not having eaten for four hours before bleeding, tea and biscuits were provided both before and after withdrawal of blood and only 440 cc. of blood was taken. If donors were underweight, only 350 or 400 cc. of blood was drained. Donors whose blood pressures fell as the result of bleeding, or during the rest period and continued low after being up and around were required to rest until the blood pressure returned to previous levels. *Lancet 243:531-535 (Nov. 7), 1942.*

STUDY REVEALS ARMY AIR SCHOOL INSTRUCTORS SUFFER EXHAUSTION

More Rest Needed Because Of Heavy Schedule They Are Working On Due To The Rapidly Expanding Program Of Army Air Forces

A fatigue study of army flying school instructors to ascertain the effects on them of the increased flying hours required of them under the rapidly expanding air force program leads to the finding that "Such a schedule, if continued indefinitely, without sufficient daily and frequent longer rest periods, will undoubtedly lead to deterioration in the health and efficiency of the instructors," Captain John E. Dougherty, Medical Corps, Army of the United States, reports in the current issue of *War Medicine,* published by the American Medical Association in cooperation with the Division of Medical Sciences of the National Research Council.

Captain Dougherty points out that "The Army Air Forces are expanding so rapidly that training schedules are arranged for continuous periods of instruction. This expansion in the training schedule necessitates an increase in the number of flying instruction hours per day in order to keep the program progressing satisfactorily. The supply of trained instructors has been unable to keep pace with the number of aviation cadets; consequently, it has been necessary to increase the number of flying hours daily for each instructor. Major Paul C. Gilliland, Medical Corps, Surgeon at Randolph Field, Texas, initiated a fatigue study on 20 instructors

(Continued on page 52)



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*The Postsurgical Biliary Syndrome: Rev. Gastroenterol. 10:62-69 (Jan.-Feb.), 1943.

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AIR INSTRUCTORS (Continued)

selected at random from the first and the second training group of the Air Corps Basic Flying School, Randolph Field, to ascertain the effects of the increased flying hours on the instructors."

In his summary, Captain Dougherty says that "the average number of flying hours per person (over the six week period of the study) was one hundred and eighteen hours, compared to an average of eighty-one hours for the same period in 1941 for another group of instructors. . . . The 20 instructors (in ten weeks in 1942) spent a total of four thousand, two hundred and ten hours and twenty-five minutes, or an average of two hundred and ten hours per man. During the same period in 1941 the total was two thousand, seven hundred and sixty hours, or an average of one hundred and thirty-eight hours per instructor, which is a total increase of one thousand, four hundred and fifty hours and an individual average increase of seventy-two hours.

"The ages of the instructors ranged between 21 and 28 years, and the time spent as instructors ranged between one and sixteen months. It is apparent that such an increase in flying hours should affect the instructors. This study was conducted to determine the effects, and the conclusions are as follows:

"1. The younger instructors were slightly less affected than the older ones.

"2. The periods of greatest stress occurred when day flying and night flying were necessary.

"3. Seventeen of the 20 instructors required one to two hours' additional sleep.

"4. Pilot fatigue was manifested subjectively in the 20 instructors by the following symptoms:

(a) A continuous sensation or feeling of tiredness.

(b) Late afternoon fatigue, usually pronounced.

(c) Increased irritability toward students, friends and wives.

(d) Less patience with students. Most of the instructors found it impossible to maintain patience; cadets were criticized severely for slowness and were frequently dismissed without sufficient instruction.

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(e) Less concern with the progress of students. All of the instructors stated that they tried at all times to keep an active interest in their students; however, some of the men found it impossible to maintain an interest because of the constant feeling of fatigue.

(f) Diminution in mental alertness and onset of mental fatigue. Ten of the 20 instructors reported this symptom on twenty occasions. However, when all 10 were requestioned carefully, they admitted that this symptom actually existed more often than stated; that on numerous occasions carelessness, especially late in the afternoon, was a common occurrence, and that they frequently discovered themselves in dangerous situations which under former conditions did not occur.

(g) Tinnitus aurium (ringing or singing sound in the ears), loss of appetite and insomnia were relatively infrequent. . . .

"One of the instructors expressed the situation aptly wth the following statement: We have twice as many students, and the diversified training has increased about twofold, which should require about twice as much time to explain the maneuvers; however, we have only half the ground time to do it in. The students are not getting as thorough instruction and cannot progress as rapidly as they should. The instructors are tired and cannot give the students the attention they deserve.

"Inasmuch as each instructor was selected at random, 1 person for each 10 stationed at Randolph Field, it can be asumed that these conclusions would apply to the remaining 108 instructors."

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The Japs have withdrawn or have been conquered on some of the islands in the vast expanses of the South Pacific, but the disease-axis which makes a bastian out of these "tropical paradises" stubbornly hems in our jungle fighters. The battle with disease is incessant. There are no breathers between engagements and the continuous, pitched battle against a numerically large foe cannot be decisively won, but must be held at bay.

Fighting side by side with the Marines in their unrelenting battle against the Japs is an unsung detachment whose weapons are chemicals, drugs, and sanitation. This unacclaimed, yet vitally important unit, is known as the "Skeeter Beaters" or Anti-Malaria Brigade.

Enemies of this ingenius disease-eradication force are numbered in the billions — large waves of mosquito marauders staging day and night infection attacks — which penetrated deep into our lines unopposed until organized malaria-control units began wiping them out by the millions. Now, these "Skeeter Beaters" are slowly conquering the greatest malaria problem since the building of the Panama Canal.

Two major types of strategy are employed — cure and prevention. Men contracting malaria, or suspected of having it, are given immediate tests and treatments. First signs of malaria are generally headaches, extreme fatigue, and fever or chills. Blood tests are often given to determine whether men showing symptoms are afflicted with this dread jungle disease.

Every known anti-malarial drug is used in treating the men, including atabrine which has proved successful in battle tests. Field treatment enables the men to continue in combat. Lingering cases of malaria are evacuated to battle-equipped base hospitals.

To carry out the strategy of prevention, the malaria unit wages an offensive war against the mosquitoes. Swamps and other breeding places are invaded and sprayed with a coating of oil. Millions of mosquitoes are killed in the larvae stage — before they have an opportunity to become carriers of the disease.

Every jungle fighter is also equipped with a

mosquito net, a practical safeguard against the malaria-carrying enemy.

The battle against disease is not confined to the Marines. All of the fighting forces must meet and solve the problem. But because they are a swift, mobile force and thus can carry only essential equipment, the problem for them is more acute. They have met and conquered their human enemies against tremendous odds, and the malaria unit, fighting with them is endowed with the same spirit. It, too, is meeting and beating the enemy — malaria — on its own grounds.

— USMC —

Prepared by: Public Relations Section, CPD
U. S. Marine Corps
Room 777 U. S. Courthouse
225 So. Clark Street
Chicago, Illinois

POINTS TO THE FALSE ECONOMY IN MISUSE OF PRESCRIPTIONS

Such Practices Actually Mean Throwing Away Time And Money On Unnecessary Illness, Physician Points Out In Hygeia

"In these days few people can afford to throw away time or money on unnecessary illness, yet that is what they are doing when they misuse prescriptions," Austin E. Smith, M.D., Chicago, declares in *Hygeia, The Health Magazine* for June. "Millions of dollars are spent needlessly when nothing is physically wrong with people or when something is seriously wrong but proper medical advice is sought too late," he explains. "It is well to remember that the harmful effects of drugs do not come from their use under proper medical supervision but from their indiscriminate use. . . ."

A prescription, Dr. Smith says, is a written order for the preparation and administration of one or more drugs. It is written by the physician for a definite purpose and is intended for the treatment of a specific disease or for the relief of a specific symptom in one individual. Thus a prescription cannot be used for a wide variety of diseases, nor can it be used by a large number of people.

"There are several obvious reasons for this,"

(Continued on page 56)

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PRESCRIPTIONS (Continued)

he continues. "Two diseases causing similar symptoms may be entirely different in nature. The dose of the drug may be entirely different for two people; in some persons one dose is satisfactory, while in others it is not enough and in still others it is too much. Some people are sensitive to drugs, and what may be a satisfactory amount for one patient may produce severe reactions in another. . . . Further, drugs may act differently in different people. They are absorbed and excreted at varying rates. The dose is affected by age, body weight, sex, time of administration, method of administration and excretion. For example, children are more sensitive to drugs than are adults, and women are often more susceptible to the action of certain drugs than are men.

"When a physician writes a prescription, he puts in it certain directions which have resulted from a careful study of the patient's troubles and needs. Each written word has a specific meaning and bears a definite instruction which the pharmacist observes when he fills the prescription. Some of the physician's directions are reproduced on the label, but those which relate to the choice of drugs, their preparation and intended use are necessarily absent. . . .

"The only proper use for a prescription is when it is administered to the patient as prescribed by the physician. Misuse consists of not following the physician's directions as to size and frequency of dose, and of using the prescription for other ailments or other patients. . . .

"When a prescription is no longer of use to the patient, it should be discarded. There is nothing to be gained by keeping a bottle of medicine that was compounded some years ago. . . . The active ingredients of the prescription, especially if it is in liquid or ointment form, may have lost their therapeutic [treatment] value; furthermore, any new or similar appearing condition may require a different medicine. . . ."

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An elderly, unkempt man stood before a judge on a charge of drunkenness. As he was about to be sentenced his belt broke and his trousers slipped to his knees.

"Take this man out back and get some rope," the judge ordered as a bailiff rushed up.

Another prisoner whispered hoarsely to his attorney, "For goodness' sake, can they hang a man for that?"

— *Pointer.*

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PHYSICIAN'S CHICAGO OFFICE — 1117 Marshall Field Annex — Wednesdays, 1 - 3 P. M. — Central 1167

The
ILLINOIS
Medical Journal

VOL. 84 NO. 4

October, 1943

In This Issue

The Evaluation of the Patient with Heart Disease as a Surgical Risk

✦

Exposure of the Retro-Duodenal Portion of the Common Duct

(See page 29 for Table of Contents)

OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY



Non-Irritating Bulk

—non-digestible and non-absorptive of vitamins—makes this hydrophilic colloid a favored laxative in colitis

Mucilose



This highly purified hemicellulose is available in 4-oz. and 16-oz. bottles as Mucilose Flakes and Mucilose Granules.

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WHEN INVASION COMES

In a dim chilly dawn, while thin mists ghost over the sea... grim in invasion barges will be soldiers of freedom... straining for action... steeled for what is to come.

In one of those barges an American man of medicine will crouch, kit open before him checking the vital medicaments that may mean life for those who fall wounded... ready to bring surcease from pain to tomorrow's heroes.

When invasion comes, Ciba Pharmaceutical Products, Inc., and its associated companies will know that in their way they have contributed to the turning of the tide... from barbarism back to honor and compassion for their fellow men. The months of intensive planning, retooling, rescheduling and the long days and nights the employees have cheerfully given to meet military requirements, can then be saluted as a "job well done."

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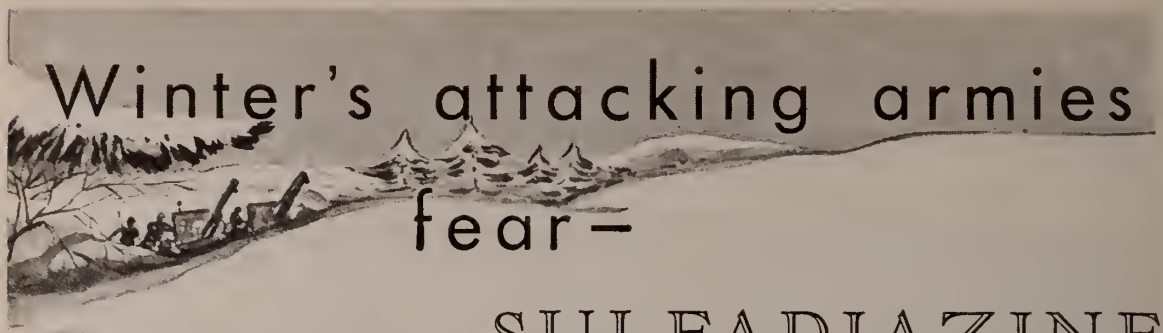
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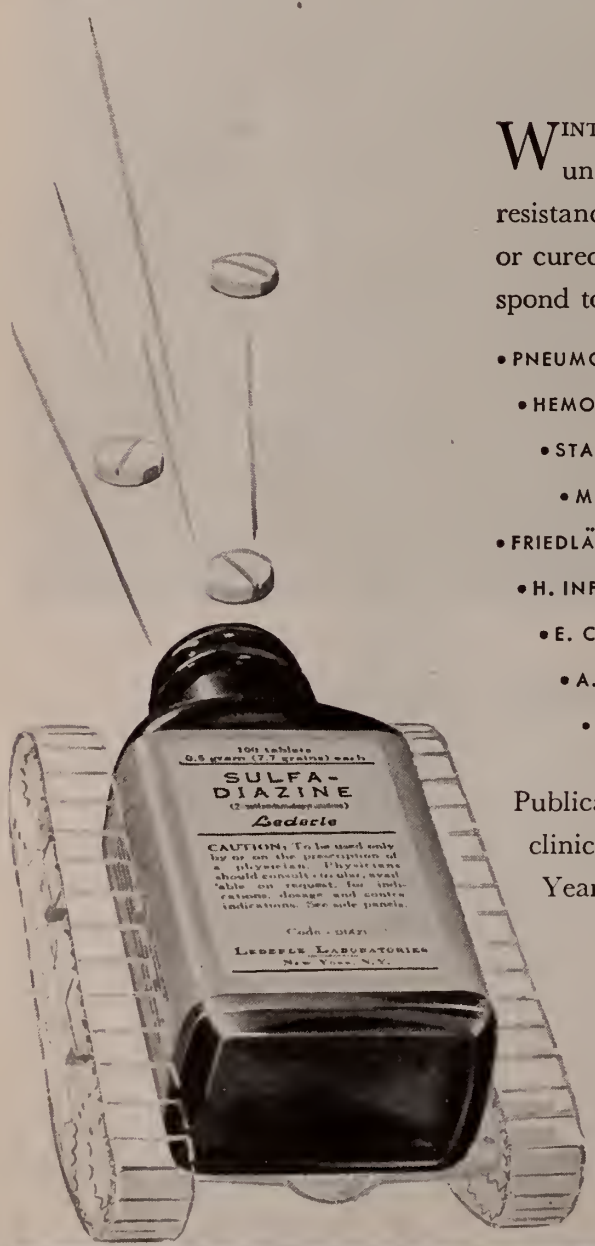
Winter's attacking armies fear—

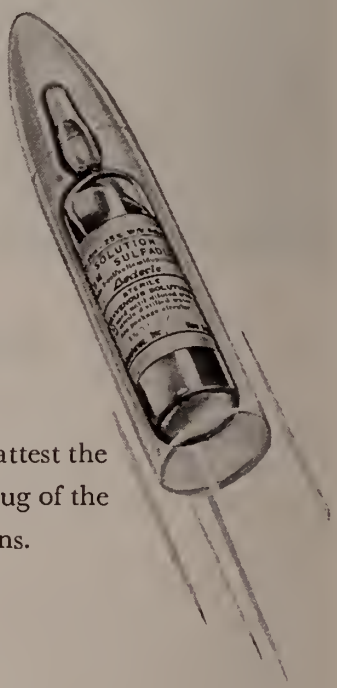
SULFADIAZINE

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WINTER INFECTIONS encircle and drag down the unwary when snow and blustering winds lower resistance. Many of these infections may be arrested or cured by sulfadiazine. Infections most likely to respond to such therapy include those caused by

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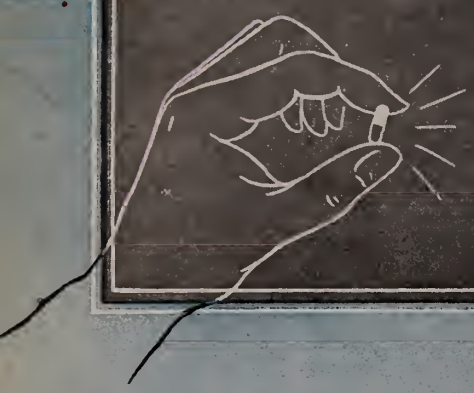


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1..... Optimum Dosage of ERTRON
2..... Antiarthritic Effect of ERTRON
3..... Safety of ERTRON
4 Sustained Improvement with ERTRON



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The investigators found that three capsules (150,000 U.S.P. units) of Ertron per day in some cases of arthritis produced definite relief; four to six capsules (200,000 U.S.P. units to 300,000 U.S.P. units) per day were necessary to produce maximum benefit.

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In their summary, the authors state: "In a certain proportion of severe cases of arthritis, which previously resisted the more commonly used forms of treatment over a period of two or more years, the use of Ertron brought about a very satisfactory remission of their symptoms . . . the swelling of the soft tissues was diminished or disappeared, there was increased range of motion and more normal functional activity with much less or no pain."

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"The improvement was sustained in the majority of cases . . . In a few cases it was found that in order to keep patients free from symptoms, it was necessary to keep the patient on small maintenance doses."



†Snyder, R. G., Squires, W. H. and Forster, J. W.: Indus. Med., 12:291-297, (May) 1943

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Habit Time for Bowel Movement in convalescence is decidedly a valuable factor which contributes to the patient's well-being and comfort.

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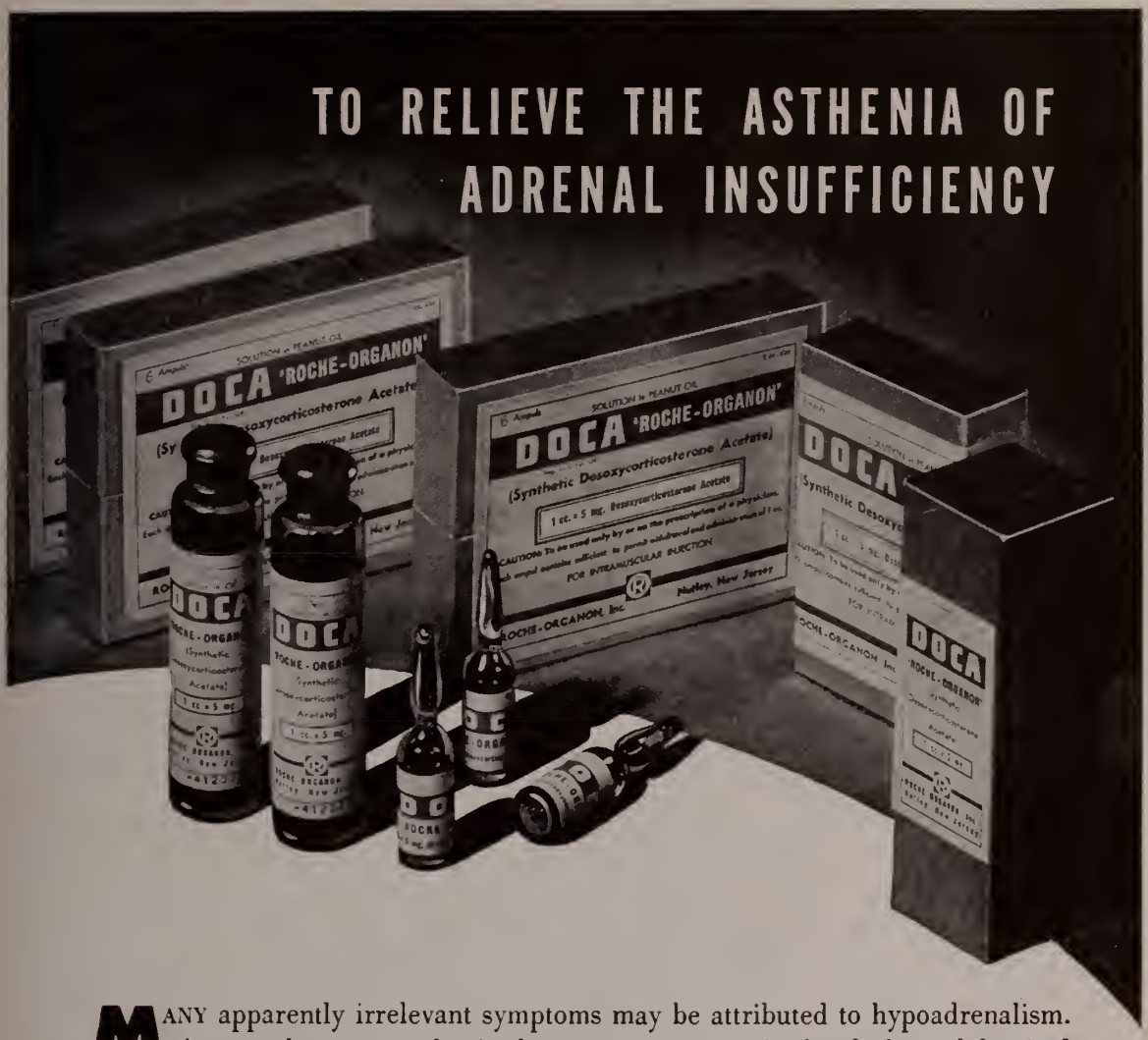
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Constant uniformity assures palatability —normal fecal consistency. Five types of Petrogalar provide convenient variability for individual needs.

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MANY apparently irrelevant symptoms may be attributed to hypoadrenalism. Among them are asthenia, hypotension, anorexia, headaches, abdominal pains, nausea, neurasthenic or psychasthenic symptoms—symptoms that by themselves do not necessarily imply adrenal involvement. Williams (*Dis. Nerv. System,* 1943, *4*:185) says, "The cases that are likely to escape detection as adrenal-involved are the 'asthenic' type" To several such asthenic patients whose symptoms were "easy fatigability, lack of energy, and psychoneurotic tendency" Williams administered desoxycorticosterone acetate. After four weeks of therapy, these patients experienced an "improvement in general physical condition"; furthermore, they were again mentally alert and optimistic. *Doca,* the Roche-Organon brand of desoxycorticosterone acetate, is available in 1-cc (5-mg) ampuls, boxes of 3, 6, and 50, and 10-cc (1 cc = 5 mg) vials. *Doca* is stocked by leading professional pharmacies and physicians' supply houses.

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For Muscular Relaxation in

- **Convulsive shock therapy of mental disease**
- **The differential diagnosis of myasthenia gravis**
- **The management of spastic paralysis**

The traumatic complications of convulsive shock therapy can now be avoided by the use of Intocostrin. Because of the muscle-relaxing property of this drug, muscular contractions are reduced, fractures prevented, restraining devices are unnecessary, after care is easier and patients have less fear of treatment.

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Intocostrin is the result of long and exacting scientific study of curare by the Research Laboratories of E. R. Squibb & Sons. Methods were developed for extraction and purification of curare, for an unusually accurate method of physiologic assay, and for production of a uniformly potent, stable, sterile aqueous extract of the drug. Intocostrin is available in 5 cc. vials, each 1 cc. containing the equivalent of 20 mg. of standard drug.

Extensive clinical trial over a period of four years has established the noteworthy therapeutic advantages of Intocostrin. Full particulars concerning its use can be secured from your Squibb Representative or by writing to the Professional Service Department, 745 Fifth Avenue, New York 22, N. Y.

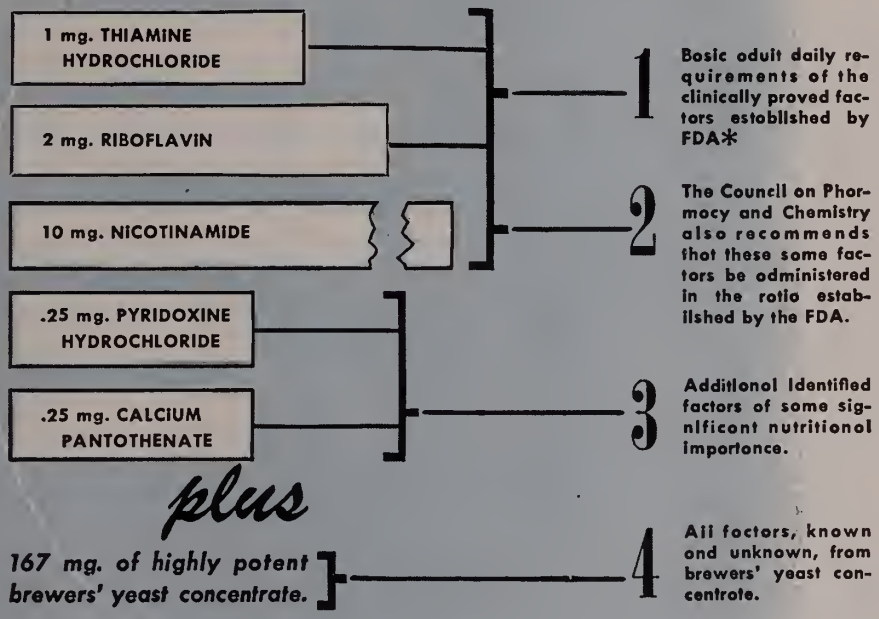
*Intocostrin is a trade-mark of E. R. Squibb & Sons.

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WHITE'S MULTI-BETA CAPSULES *(Vitamin B Complex)*

TO standardize B Complex dosage, White's Multi-Beta Capsules are formulated to conform with all standards of potency and ratio of the B Complex factors recommended by the Council on Pharmacy and Chemistry or promulgated by the Food and Drug Administration.

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IN CLINIC and private practice, as well as in tests on laboratory rats, comparisons of B-vitamin therapies consistently show two facts:

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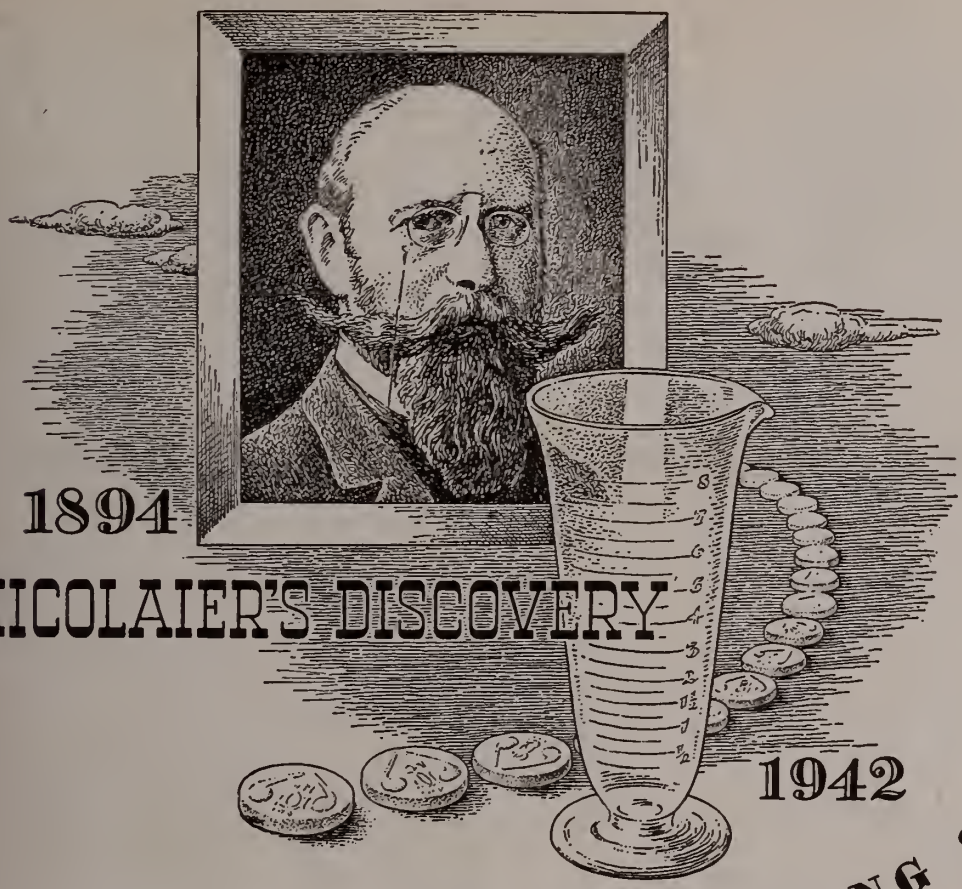
2. *Fully effective* results follow the use of *natural* vitamin B complex.

Elixir B-Plex is available in 8 fl. oz. bottles. A pharmaceutical of Wyeth's, Philadelphia.



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Twofold Action Relieves Spasm

IN DYSMENORRHEA

GASTROINTESTINAL SPASTICITIES

PAVATRINE

POTENT, SAFE, NON-NARCOTIC, ANTISPASMODIC



Pavatrine provides a dual antispasmodic action:

1. **MUSCULOTROPIC**—*local action upon muscle*
2. **NEUROTROPIC**—*through nerve supply to smooth muscle*

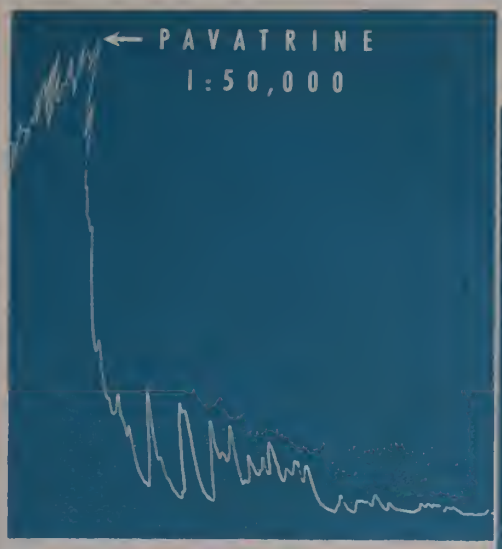
—thus effecting relief whether the spasm is of muscular or neural origin.

Bickers*, reporting on the treatment of dysmenorrhea, states that Pavatrine "is non-narcotic and has a morphine-like action."

*Bickers, Wm.: "Primary Dysmenorrhea," Va. Med. Mo., 69:8 (Aug.) 1942.

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Effect of Pavatrine in relieving acetylcholine induced spasm. (Excised rabbit uterus)

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Dysmenorrhea, for relaxing the hypertonic uterus.

Gastrointestinal Dysfunctions: cardiospasm, gastric hypermotility, pylorospasm, spasticity of the duodenum, spastic states of colon.

Urinary Bladder Spasm in cystitis, instrumentation or simple tenesmus.

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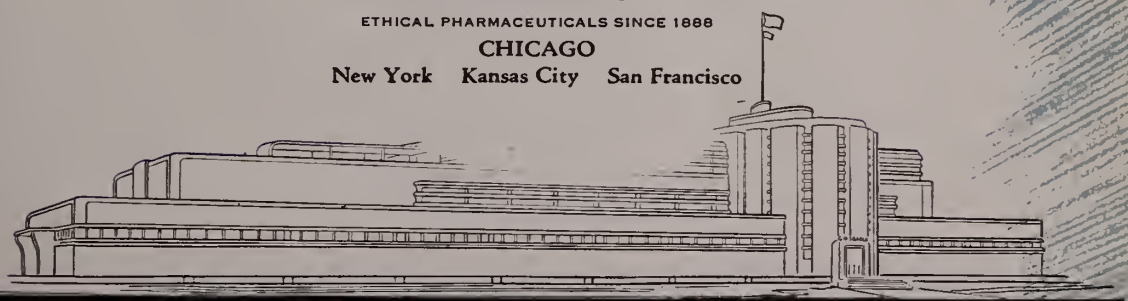
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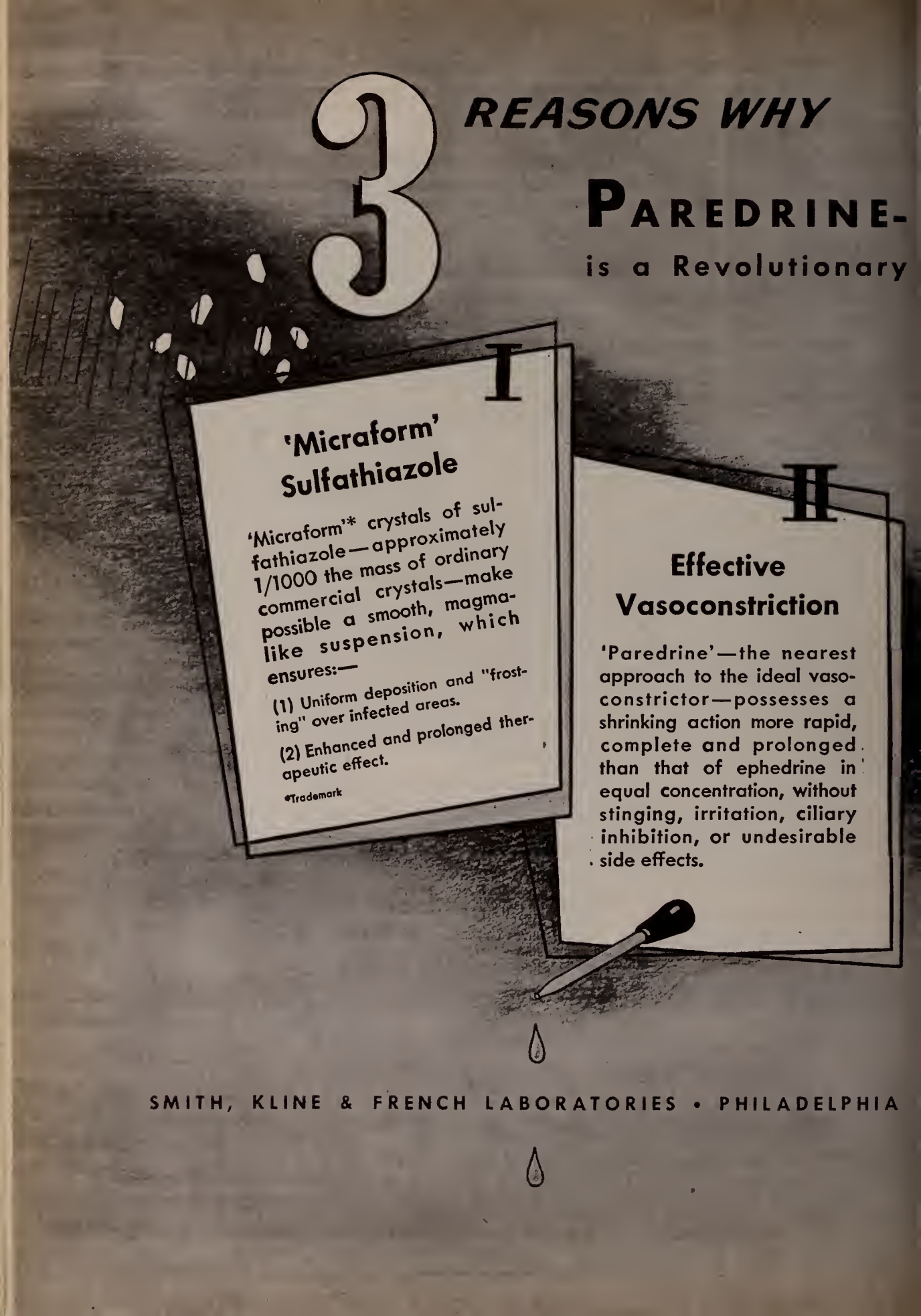
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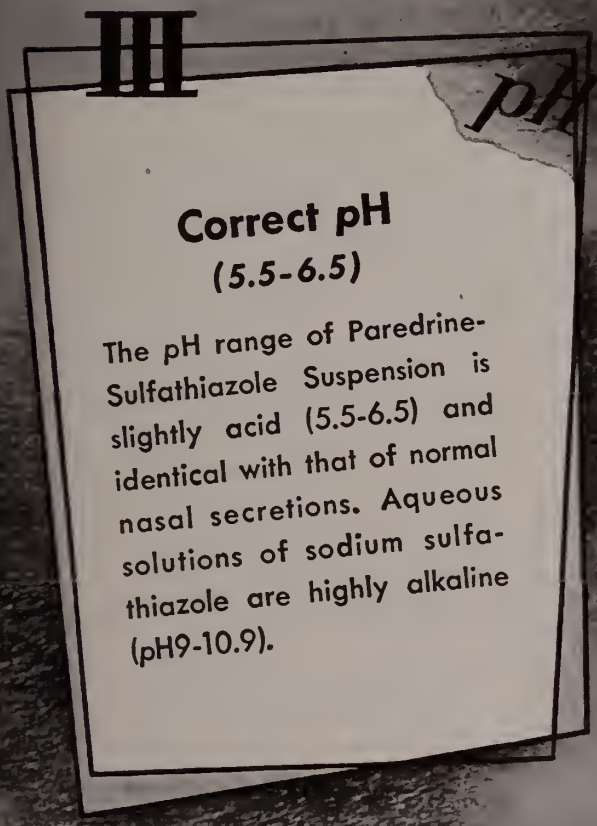
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RESEARCH IN THE SERVICE OF MEDICINE


3 REASONS WHY
PAREDRINE-
is a Revolutionary
I
'Micraform' Sulfathiazole
'Micraform'* crystals of sulfathiazole—approximately 1/1000 the mass of ordinary commercial crystals—make possible a smooth, magma-like suspension, which ensures:—
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When a vasoconstrictor alone is indicated—

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Thinking of gifts to those in service? Send Camels . . . the gift that's *appreciated!* It's the favorite brand of the armed forces† for the kind of smoking fighting men deserve.



1st in the Service

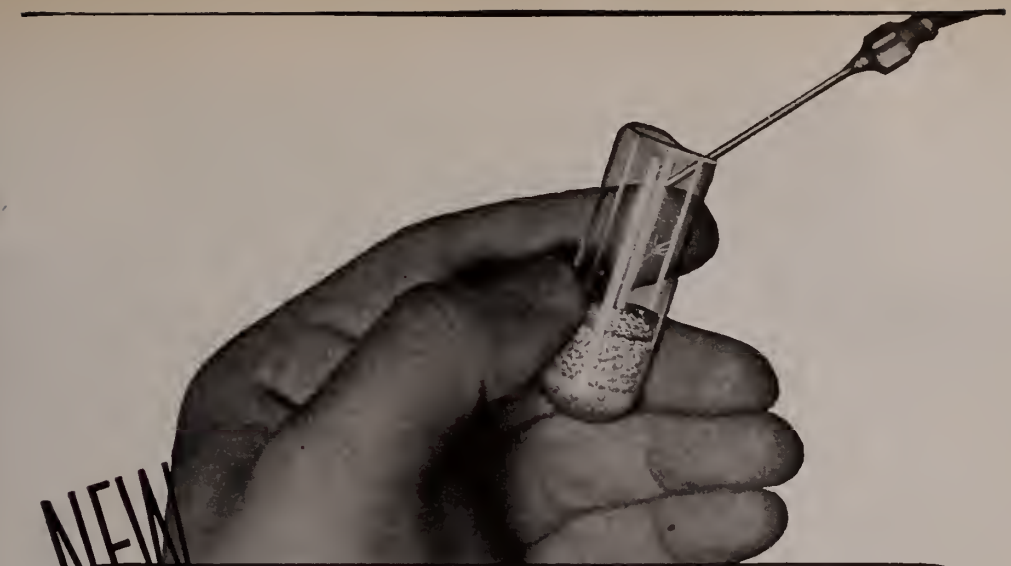
† With men in the Army, Navy, Marine Corps, and Coast Guard, the favorite cigarette is Camel. (Based on actual sales records.)



Camel

—costlier tobaccos

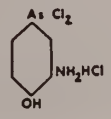
New reprint available on cigarette research — Archives of Otolaryngology, March, 1943, pp. 404-410. Camel Cigarettes, Medical Relations Division, 1 Pershing Square, New York 17, N. Y.

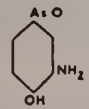


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ANTISYPHILITIC PREPARATION— YIELDS FRESH ARSENOXIDE SOLUTION

It is well known that arsenoxide is the effective end-product of arsphenamine compounds. Extensive clinical experience indicates that arsenoxide possesses a relatively constant parasiticidal value and that reactions following its use are less severe than with the arsphenamines.

Dichlorophenarsine hydrochloride—Winthrop 

has within its molecule the nucleus for making arsenoxide. With 

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Ciba Pharmaceutical Products, Inc. salutes the medical men of today in the armed forces of the United States as well as those in civilian forces responsible for health "behind the lines".



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SUMMIT, NEW JERSEY

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GREATER AND MORE PROLONGED ACID NEUTRALIZING POWER

An Outstanding Pharmaco-Chemical Achievement

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Magnesium Trisilicate In a True Magma

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Contains No Aluminum Hydroxide

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Not Constipating

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Clinical response to Magmasil sets a new high standard in the treatment of peptic ulcer, gastritis, hyperchlorhydria. Since it is free from the drawbacks of many other antacid medications, Magmasil therapy is marked by dependable patient cooperation.

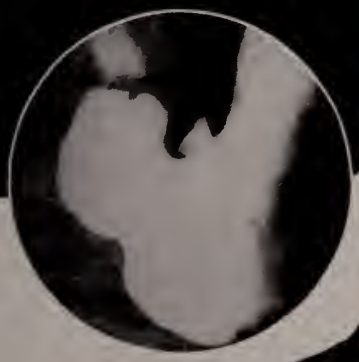
Magmasil cannot lead to alkalosis, to chloride depletion, to constipation. In the dosage employed, it exerts no influence whatsoever on intestinal motility.

Since its profound neutralizing power (86 cc. of N/10 HCl per teaspoonful) is exerted over fully four hours after ingestion, fewer doses are needed, and pain and pyrosis do not recur. The customary eleven o'clock dose usually holds the patient comfortable through the night.

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GASTRIC HYPERACIDITY...
ACUTE AND CHRONIC GASTRITIS

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. . . to the Two Basic Problems of Gastro-Intestinal Dysfunction



ZymenoL contains Pure Aqueous Brewers Yeast (no live cells).

Intestinal Content:
ZymenoL assures near fermentative fecal bulk with a less toxic, aciduric bacterial flora through Brewers Yeast *Enzymatic Activity.**

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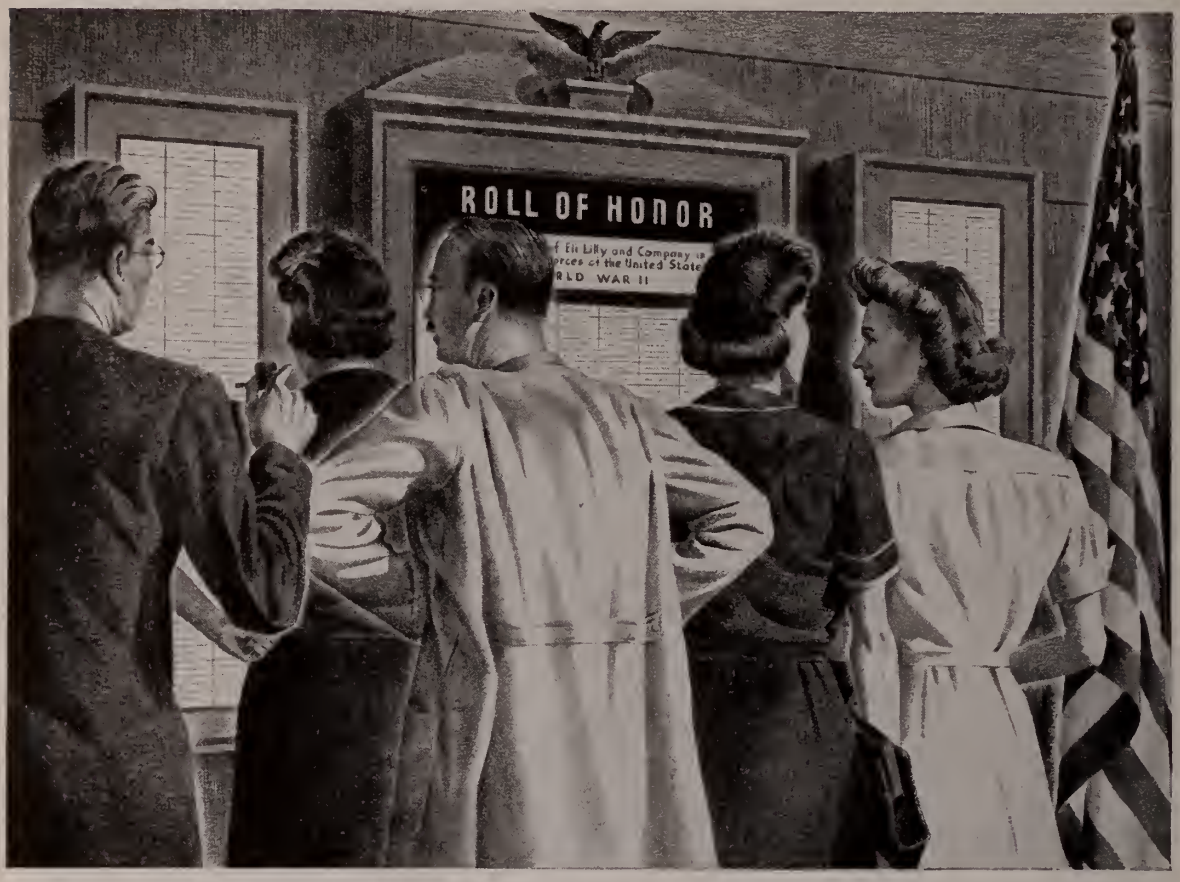
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October, 1943

VOL. 84, NO. 4

The Illinois Medical Journal

Official Journal of the Illinois State Medical Society

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Editorials

PLANNING FOR POST-WAR MEDICAL SERVICE

During recent months since the allied forces have assumed the offensive on all fronts, much consideration has been given to the many problems in connection with post-war planning. For many years we have heard the slogan, "In time of peace, prepare for war", and it is quite obvious to all that during war time it is highly essential that much consideration be given to the many problems which will come to this (as well as other nations) immediately following the successful conclusion of the present world wide conflict.

On March 15, 1943 there was held in New York City, the National Conference on Planning for War and Post-War Medical Services. A number of interesting papers on various phases of the subject were well presented and freely discussed. These papers subsequently were published in the Journal of the American Medical Association.

One highly important subject which many believe should have been given greater consideration at this conference is that pertaining to the many problems which the medical officers with our armed forces will be facing upon their return to civilian practice. Surgeon General Ross T. McIntyre stated recently that it may be necessary to retain one-third of the physicians in service following the conclusion of the war so that they may aid in the giving of medical care that will be required in many parts of the world. So, perhaps many of those physicians now in service will not return to civilian practice for a considerable length of time.

One of the present duties of the physicians remaining at home is to see that those returning to their former field of endeavor actually have something worth returning to — so that they may begin at once to render civilian care with a minimum loss of time. The practice of many of these physicians now at war will have been absorbed by one or more physicians who have remained at home. It is natural to assume that these physicians will willingly relinquish the patients so that they may again be under the care of the one formerly responsible for their well-being.

The problems relative to relocation of returning physicians is another which must be given serious consideration, for no doubt many of the demobilized physicians will prefer to enter practice in another field. Places should be made available so that they may open an office and establish a practice according to their individual preferences. Many of the younger physicians will desire to complete their internships and residencies, and efforts should be made to have the available positions properly indexed so that, with but little confusion, places may be made

for this group of returning physicians after the war.

With the war ended, perhaps many physicians will believe that it is essential for them to take postgraduate work before re-entering private practice. Plans will no doubt be made everywhere to make such courses available. This can easily be a function for organized medicine to assume, or at least supervise, with the cooperation of the large hospitals, medical educational institutions, and various clinical centers.

Those physicians who have been with the armed forces formerly enjoyed a practice in a country where free enterprise, through the classical physician-patient relationship, was enjoyed. It is hoped that they will be permitted to reenter a practice with this same type of initiative and endeavor still prevailing.

With the United States enjoying the lowest mortality rate of any of the major countries of the world, and with the best health record anywhere, there are no statistics yet available which will prove that the American people will be more healthy under any new type of medical care system which has, to this time, been recommended.

CHEMOTHERAPY MARCHES ON

Since the outbreak of the war research workers have brought out several new chemotherapeutic agents which are apparently helping to no little extent in the medical care of members of our armed forces. The highly publicized penicillin has been receiving an unusual amount of publicity in recent months, but with the limited supply available, very little of this valuable preparation is available for civilian use. Several drug manufacturing companies have been licensed to produce penicillin, but it can be developed only in small quantities, a situation which will no doubt continue for some little time.

Many people, probably because of the extensive publicity which has been given through the press and over the air on this newer "miracle" drug, are led to believe that it will cure almost any malady imaginable. Such has not proven to be the case at all. Penicillin, from its limited

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use to date, seems to be more effective in the treatment of staphylococcus infections than the sulfonamides and other preparations. Likewise it has been found of much value in the treatment of gonorrheal infections, some types of pneumonia, and in some of the hemolytic streptococcus infections, although its actual value in many conditions has not as yet been determined definitely.

From information received it is understood that only a limited quantity of penicillin is now available for civilian use, and this can be procured only through Dr. Chester S. Keefer, chairman of the Committee on Chemotherapeutic Agents for the National Research Council, whose address is in care of the Evans Memorial Hospital, Boston. Dr. Keefer is no doubt receiving many requests daily for a supply of penicillin, and many of them cannot be filled.

Physicians throughout the country will be interested in further developments and releases on the use of penicillin. Perhaps after the war it will be possible to determine the real value and more specific indications for its use. Extensive bibliographies on the development and use of this preparation are now available, and several references to this subject have appeared in recent issues of this Journal.

From information received it seems that penicillin is of but little value in combatting disease when given orally, and that it must be administered parenterally to get desired results. It is quite likely too, that it will not prove to be the panacea that many have imagined, and that its true value in the treatment of many ailments has not as yet been established definitely.

The medical profession of America as well as of all other countries, will be awaiting anxiously additional information based soundly upon scientific investigations on the true value of this highly praised chemotherapeutic agent. Likewise we will await the time when it will be available for general clinical use.

About 65% more young women than men die of tuberculosis between the ages of 15 and 25. From a practical standpoint the employer of large numbers of women needs an effective medical department if he would avoid a tuberculosis problem. Symposium on Tuberculosis in Industry, N.T.A. 1941.

ROBERT QUILLEN SAYS:

If you prefer having a fair warning before the storm hits, go first to your doctor to have your blood pressure checked and then write to one of your senators for a copy of the Wagner-Murray Senate Bill 1161. He will send you one without charge, and you will find it a remarkable document well worth reading.

The chief author of the bill is the same German-born Senator Wagner of New York who gave us the law that "protects the rights of labor," but denies the boss even the right of free speech. And if all goes well, the bill will be passed by the next Congress.

Its purpose is to provide more social security, including medical care. And, as usual, it levies a tax — this time a whopper.

It will add $12,000,000,000 a year to our annual tax burden — 12 times the total cost of government when dad was a youngster.

It will take 6 per cent from your pay envelope, up to $3,000, and another 6 per cent from the boss. From the self-employed — the doctor, farmer, merchant — it will take 7 per cent up to $3,000, or $210 a year.

Three-fourths of the money will be used to extend the benefits of social security, but one-fourth, or $3,000,000,000, will be turned over to the surgeon general, and he will be the absolute czar of American medicine, empowered to provide free medical and hospital care for 110,000,000 people.

He will control all hospitals and decide which ones can operate and how much they shall charge.

He will tell doctors where to practice and how many patients they may have and how much they may charge. He will also decide which ones may call themselves specialists.

(The bill generously permits each of us to choose his own doctor, but not if the one of our choice already has his allotted number of patients.)

There are many other remarkable provisions in the measure, but this is enough to give you the idea.

Three billion dollars is a lot of money. It is enough to hire every doctor in America at a salary of $5,000 a year; to hire every bed in every privately operated hospital every day in the year at the rate of $5 a day; to pay $2.50 a day every day in the year for each

bed in government-owned hospitals; to spend over $250,000,000 a year for medicine and supplies, and still leave $500,000,000 for political jobholders.

If your doctor seems a little absent-minded and peevish these days he is thinking about his future when politicians control the practice of medicine. *Reprint of article appearing in the Indianapolis Star, August 5, 1943.*

WAGNER-MURRAY BILL OPPOSED BY AMERICAN BAR ASSOCIATION

At the annual meeting of the American Bar Association held in Chicago, August 23-26, both the assembly, which, in effect, is the convocation of the membership at large, and the house of delegates of the association opposed the enactment of Senate bill 1161 on the grounds that such an eventuality would "establish federal control of the medical profession and the regimentation of doctors and hospitals." Further, the house of delegates put itself on record as being "opposed to any legislation, decree or mandate that subjects the practice of medicine to federal control and regulation beyond that presently imposed under the American system of free enterprise." The house of delegates then requested the association's board of governors immediately "to appoint a special committee to study, analyze and investigate S. 1161 and to give publicity to the recommendations and findings of the special committee and the action of the board of governors thereon." The personnel of this special committee, it is understood, has already been determined by the board of governors and will be announced in the October issue of the *American Bar Association Journal. — J. A. M. A. Sept. 18, 1943.*

It takes longer to train a Doctor of Medicine than it takes to build the most elaborate battleship. Much thought should go into this training and building, that both may be sturdy, and by all means adequate. Standards must not be lessened. Those whose training is now starting are for the postwar period, not for the present emergency, and there is no excuse to neglect or to reduce standards. *Jour. MSMS.*, — June, 1943.

SAYS HISTAMINE THERAPY MOST PROMISING TO DATE FOR MENIERE'S DISEASE

From his experience with 22 patients, John J. Rainey, M.D., Troy, N. Y., reports in *The Journal of the American Medical Association* for July 24 that he believes histamine treatment of Ménié'r's disease is the most promising method of treatment up to the present time. Ménière's disease syndrome, he explains, is the name given to a group of symptoms in which vertigo (dizziness), nerve deafness and tinnitus (a ringing or singing sound in the ears) predominate. Most of the attacks of vertigo occur without previous warning and often are terrifying in their intensity. It is generally accepted that the symptoms of the disease are the result of a local disturbance of the inner ear.

Dr. Rainey treated his 22 patients by injections into a vein of histamine phosphate, giving at least two and in some cases three treatments on alternating days. Seventeen of the patients had striking results. With 5 patients the results were disappointing but further studies are being carried on. The use of histamine for this disease was first reported in 1939 by B. T. Horton.

In Chile, tuberculosis, cardio-vascular conditions, and venereal disease are jointly responsible for 60% of all deaths occurring during working life, for 56% of all hospital admissions, and for 38% of the "latent morbidity" of apparently healthy persons examined by the medical services of the insurance institutions. These diseases, particularly tuberculosis, bring about an annual loss of 170 million hours of work, a loss equivalent to the unemployment of one-quarter of the able-bodied population. To cope with this situation a Preventive Medicine Act was enacted some years ago. Among its clauses was one requiring periodic medical examinations to be carried out systematically and free of charge for the great majority of workers and salaried employees in the country. Another clause introduced a system of preventive rest as an essential and effective means of saving the sick worker, treating him rapidly and prolonging his working life. Since the Act passed, 60,000 men and women have been medically examined and allowances for preventive rest have been paid to 20,000. It has enabled the controlled treatment of many victims of venereal disease, taking action in regard to contacts of tuberculosis and venereal disease, mass radiography, and provision of dental services at a low cost. Industrial medicine has been organized and a fresh impetus given to the study of occupational disease. Ed. Jour. Royal Inst. Pub. Health & Hyg. May, 1943.

Correspondence

TWENTY-EIGHTH ANNUAL INTERNATIONAL MEDICAL ASSEMBLY

The Inter-State Postgraduate Medical Association of North America will hold its 28th Annual Meeting at the Palmer House, Chicago October 26, 27, 28, 29. The opening session of the scientific and clinical program will begin promptly at 8:00 o'clock Tuesday morning, October 26.

The program includes thirty-four dignostic clinics covering all branches of medicine and surgery and thirty-two addresses covering many subjects. One of the most important and interesting programs will be given at the Assembly Dinner scheduled for 7:00 o'clock, Thursday evening, October 28th in the Grand Ball Room when Dr. Frank H. Lahey of Boston, Chairman of the Directing Board of Procurement and Assignment Service, will speak on "Some of the Medical Problems of the War" and Brigadier-General Fred W. Rankin. Consulting Surgeon of the Office of the Surgeon General of the United States Army, Washington, D. C. will talk on "Current Considerations of Post-Graduate Medical Education."

Registration fee of $5.00 for the four-day session.

POST GRADUATE CONFERENCE

A Post-Graduate Conference for doctors of Central Illinois will be held at Bloomington, Illinois on November 11th. The program will be given at the Illinois Hotel following a complimentary luncheon at 1:00 P. M.

The Post-Graduate Committee of the Illinois State Medical Society in cooperation with the doctors of Bloomington are working on the following program:

1:00 - —Complimentary Luncheon
2:00 - 2:45—"The Discriminate Use of the Sulfonamides"
2:45 - 3:30—Diagnostic Clinic on Heart Disease with patients presented
3:30 - 4:15—"Blood Dyscrasias"
4:15 - 5:00—Round Tables with the above clinicians leading the discussions
5:00 - 6:00—Medical and Surgical Movies
6:15 - —Dinner
7:15 - —President of the Illinois State Medical Society and a Speaker on a subject relating to medicine and the war

All doctors of the territory surrounding Bloomington are cordially invited to attend this Conference on November 11th. Doctor Frank Deneen, Bloomington, a member of the Post Graduate Committee of the Illinois State Medical Society will serve as Chairman of the Conference.

UNIVERSITY OF ILLINOIS TO STUDY COMPOSITION OF PENICILLIN

The Board of Trustees of the University of Illinois have announced the acceptance of a grant of $25,000 a year for three years made by The Upjohn Company of Kalamazoo, Michigan, to be devoted to the academic study of the structural composition and possible synthesis of penicillin.

The Company's present grant, says F. W. Heyl, Ph. D., Vice President and Director of Research, provides for an enlarged three-year research chemistry project under the direction

of Professor Herbert E. Carter of the department of biochemistry at Urbana, Illinois. This says Heyl, amplifies both an earlier cooperative research project at that school and the bacteriological and other research which is being conducted at the Company's laboratories at Kalamazoo.

Dr. Carter is well known for his brilliant work with the amino acids, especially the identification and synthesis of the new essential amino acid, threonine, and more recently for his investigations on the structure of the cerebroside sphingomyelin.

The production of penicillin by the natural growth of the mold penicillium notatum is one of the most laborious and unsatisfactory methods in use for the manufacture of any known therapeutic agent. The hope of the future for the large scale economical manufacture of this important drug lies in the solution of the pure chemistry which alone would lead to the chemical synthesis of the substance. It is in the hope of achieving this end that the Upjohn penicillin fellowship at the University of Illinois has been established.

This grant of The Upjohn Company is a good example of the greatly increasing scientific progress being made today in the chemical and pharmaceutical industries. It indicates the kind of investment in cooperative scientific research that must be made from time to time by leading organizations in these fields.

McINTIRE HONORARY CHAIRMAN AT MILITARY SURGEONS CONVENTION

Rear Admiral Ross T. McIntire, Surgeon General of the United States Navy, and personal physician to President Roosevelt, will serve as honorary chairman for the 51st annual convention of the Association of Military Surgeons of the United States to be held in this city October 21, 22 and 23.

The announcement was made by Captain Joseph A. Biello, District Medical Officer of the Fourth Naval District, who will act as general chairman for the meeting. The vice-chairman will be Brigadier General George F. Lull, attached to the Medical Corps of the Army, and Commander Edward L. Bortz, of the United States Naval Reserve Medical Corps.

A symposium on war medicine, which will chart the progress and the recent advances made in the care and hospitalization of men in the armed forces will highlight the three-day meeting in the Bellevue Stratford Hotel here.

Rear Admiral Richard H. Laning will head the executive committee for the convention, one of the most important ever held by the military medical services of the United States.

Serving with Rear Admiral Laning on the executive committee are Dr. George Morris Piersol, Dr. Stanley P. Reimann, Dr. Gilson Colby Engel, Commander J. R. Tinney, United States Naval Reserve; Major F. D. Creedon, United States Army; and Captain J. R. Kitchell, United States Army retired.

Officials of the convention expect an attendance of more than 2000 doctors now attached to the fighting forces, many of whom will return from the battle fronts and from every section of the country where men are stationed, to hear the lectures and to take part in the panels and discussions that will mark the conference.

The surgeons general of the United States, ranking military officers, and national, state and municipal officials are expected to be present at the convention.

GREETINGS, AUXILIARY MEMBERS, FROM YOUR PRESIDENT

With the passing of summer, our thoughts turn to Auxiliary Activities and the vital work necessary to make satisfactory progress in solving the problems that confront the Auxiliary in the present crisis.

Let us think seriously of our Auxiliary work and keep well informed of the aims and objectives of our Auxiliary by reading the Auxiliary Bulletin, the Illinois Medical Journal and the American Medical Journal.

The Illinois Medical Society believes that one of the most important things the Auxiliary can do at this time, is to procure funds for the Benevolence Committee. This should be one of our first contributions of the year and we ask the wives of all the physicians to help in this great work.

At the Annual Meeting of the Woman's Auxiliary to the American Medical Association, a resolution was adopted to create a committee on War Participation for the National Auxiliary

and for all State Auxiliaries. Through this committee, we hope to unite the efforts of our Auxiliary members to function as a group and not merely as an individual nor under the sponsorship of another organization. Our state has taken up this work with Mrs. Theodore Johnston, of Chicago, as our State Chairman.

The Woman's Auxiliary is the closest and most sincerely interested ally of organized medicine. EXTENSION and INCREASE in membership should be our watchword. I do not believe that it is asking too much to expect every auxiliary to remain intact, and for every member to remit her dues and be in good standing.

Many physicians are responding to the call of their country and perhaps one of the greatest services of the Auxiliary today can be directed toward comforting the wives of these brave men. Let us impress upon them that they are especially welcome as Auxiliary members and that they may rely completely upon our helpfulness and friendship.

The Medical Auxiliary will always respond faithfully to the call of the public, but all activities which are undertaken should be done as a Medical Auxiliary, rather than as an individual, so that we who have the privilege of being identified with the medical profession, may make ourselves felt in the various communities, as an unit, standing soldidly together to protect the interests of medicine in an ethical way.

I wish to assure you of my most hearty cooperation throughout the coming year. It is my sincere desire that I might have personal contact with every county auxiliary during the ensuing year.

May I announce, at this time, all our officers and chairmen who are most happy to serve you.

Sincerely yours,

Louise Nix

(Mrs. M. A. Nix, President, Woman's Auxiliary to the Illinois State Medical Society.)

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PHYSICIANS AS ARTISTS

"From time immemorial, medicine and art have been closely associated. The same skill that makes the surgeon's fingers deft with scalpel and ligature is at work in the beautiful examples of sculpture and carving shown in this book. The eye that so quickly and accurately evaluates the gradations in color and texture between normal and pathologic tissue coordinates the hand that wields the painter's brush. The man who chooses medicine as his life's work is largely motivated by a love for his fellow man, else he would select a vocation offering greater monetary reward. From the beginning, he is trained to exercise his powers of observations, and in time develops imagination, sympathy, understanding, philosophy and reverence, all of which are the very essence of art. Moreover, he deals with that most exquisite form of divine art and beauty, the human body.

"An artist-physician has said: 'The tendency of most persons is to regard the artist with awe as a superman endowed with talents not vouchsafed to the ordinary mortal. Most doctors have a latent artistic sense which may be developed to a remarkable degree by constant practice. When opportunity affords, slip away to the park or country, sit down on a camp-stool and practice sketching from nature. At first the results may not be satisfying, but in course of time you will be gratified to notice a marked improvement. An ample sketching kit may be purchased for a small sum and any local artist will be glad to give you instruction.'

"At the least, every physician is able to develop a sensitiveness to and an appreciation for fine art. He can also cultivate a hobby, which, if not one of the fine arts, is in the class of 'work by the side of work.' Dr. Charles A. Dana, who has always stressed the value of cultural medicine, has advised: 'Be a collector, for example, of stamps or automobiles, or old books, or neckties or pins; or find diversion in some collateral branch of science; the lore of birds, of fishing and shooting. Make a garden or cultivate shrubs and flowers. These kinds of activities will make your life happier and your professional character more attractive and effective.'"

— quoted from "Parergon," published by Mead Johnson & Company, Evansville, Ind. Free copy available to physicians on request.

THE FORTUNES OF WAR

We have learned that shelter life with its common sharing of danger has helped people to withstand peril better than isolation in small groups, which often contributes to the development of psychoneuroses. The feeling of being with others during an air raid, even in an insecure shelter, brings courage.

Moreover, shelter life and community centers fill a need for companionship and entertainment which was hitherto unmet. In large cities before the war we had the paradox of want amid plenty, social want in the midst of social possibilities. — *Robert Dick Gillespie, M.D., New York Journal of Medicine.*

Medical Economics

Edited by R. K. Packard, M.D., Chairman of the Committee on Medical Economics of the Illinois State Medical Society, 826 East 61st Street, Chicago, Illinois.

The Atlantic Charter and The Four Freedoms have long intrigued me. Mr. Churchill assented to both and since has been content to a large degree not to mention or enlarge upon them. From his remarks or speeches he seems to be primarily interested in preserving the British Empire.

The Atlantic Charter and The Four Freedoms call for freedom of speech; freedom of the press; freedom of worship; freedom from want; freedom from fear and racial equality. These are promises for all the peoples of the world — regardless of their education, traditions and forms of government and years of environment and hereditary tendencies. The Atlantic Charter and The Four Freedoms sounds very nice. In fact it is a laudable long term program. The real question is — Is it a short term program and whether long or short how is it to be acomplished?

If we consider freedom of speech and freedom of the press there should be little debate. They are both fundamentals of a Democracy and one wonders why a Democracy should discuss them because without them Democracy ceases to exist. One might discuss in general our public speakers and our press writers. They are not above criticism and often condemnation. They take advantage of this freedom, and such advantage may eventually destroy this freedom. Public speakers, of all types, and contributions to our press should assume an attitude of education: that is they should present both sides of a controversy and having presented it in a syllogistic manner they should then draw their conclusions. This is not the case in many instances, but rather on the contrary, they present a one sided statement and draw conclusions on this statement. Mr. Westbrook Pegler is a rare exception. He states facts, is able to substantiate such facts and draws conclusions from facts. Those who are most engaged in freedom of speech and freedom of the press should be the first ones to protect it by intelligent and honest discussion. Many of our present day writers, and politicians are doing little to convince the American people that speech and the press are honest, intelligent and for the public good.

Freedom of worship should not be discussed. It is essential to democracy. Yet in our own country and many others we have bigots. In this country the number is growing less and this is evidence of a better civilization and the rights of man.

Freedom from want is a nice statement and perhaps a nice theory. The questions are — What do peoples want and what do individuals want? Nations have backgrounds that cannot be disregraded. They have ambitions that cannot be buried, and their wants are the results of their backgrounds and their ambitions. We cannot change their background or ambitions overnight, or by policing or by food. It must come through education and long term changes in ambition.

Individuals wants vary considerably. Some men want fame, some power, some wealth, some notoriety and some just to be left alone to work out their own problems. Can we change these ambitions and desires by legislation or by taxa-

tion? I do not think so. Human beings are selfish and they will not be free from want as long as they want some one thing. Those who want wealth really want it, and there are plenty of evidences of their going to any odds to gain it. Those who want power are no different. They use all the influences of speech, press and corrupt actions to attain and retain that power.

Since the birth of our republic there has been an understanding that the best interest of the Republic would be served if the power of government was restricted and upon that basis George Washington refused a third term as President, and all succeeding Presidents have acted likewise until our present President announced that if the people demanded he would accede; and the history of the last Democratic National Convention is well known, not a case of acceding, but, a case of a well planned campaign to retain that power and now we face the fourth term. Here is a manifest desire for a want — a want for power. The Four Freedoms and the Atlantic Charter seem empty indeed when a single man seeks such power, and uses all the instruments of government to attain it. Now, perhaps I am wrong. Perhaps he feels that he is the only man capable of guiding our destiny. If so, democracy is very weak and will of necessity have to perish and man's wants will not be gained for every man has to die in course of time.

Freedom from fear is interesting. What do men and women fear? Some fear sickness, some old age, some poverty, some inability to gain social standing and recognition, some infidelity, some their position, some politics, some a depression, some that insurance companies will fail, some that their children will not marry well, some fear that they will not have children and some that they will. Can we change these fears in all the peoples of the world by legislation? Do we want to change these wants and fears? I do not think so — even if it were possible. Life is our ability to meet our fears and wants and master the problems concerned with them and to strive to satify our wants. If you take wants and fears from individuals you have nothing left, except a machine that fills a spot, becomes antiquated, dies and is discarded for another automaton. Regimentation cannot dispel fears and wants, but it can demoralize the living energy of humans; because every individual should think of himself as sufficient to meet and solve his own problems rather than always remaining a child dependent upon a beneficent parent.

One hesitates to write regarding racial equality. It is such an abused subject. It is causing so much trouble in our country and largely because of unintelligent freedom of speech and freedom of the press and sordid politics. We should all strive for racial equality, that is a human goal to reach. But again, the question is how? Legislation freed the negro and gave him equal rights. Some politicians seized upon his right to vote and have used that for political purposes. Legislation does not produce equality. Equality comes from education, responsibility, good manners and decency, and good citizenship. Moving into a neighborhood or belonging to a club does not establish equality. A medical degree does not make me equal in skill, knowledge or research to all others. If I desire to be their equals I must earn such equality by my work, my character and my honesty. I should not be legislated their equal. The same is true in the legal profession, the dental profession, writers and publishers, public speakers, business men, engineers, chemists and all others in varied lines. Class hatred is not a means to the end. Political use is not a means to the end. Both accentuate and create an atmosphere that delays racial equality, and more than that, they contain elements of real danger.

Someone will ask what do you offer in place of the Atlantic Charter and the Four Freedoms? I offer hard work, honest politicians, education, honesty in the speech and press of our land, and a plea for management to assume a more intelligent role in its concept of its responsibility to its employees and for government to assist in all these efforts, but not to punish all the people by regimentation and enfeeblement of their individual responsibility to themselves.

All of the freedoms that we have fought and died for may be upon the threshold of danger by a continued bureaucratic growth. The wide regimentation of every individual by the proposed amendments to the Social Security Act gives full proof to our trend. Physicians should take time to read in full the Wagner-Murray-

Dingell Bill especially that portion pertaining to hospitals and physicians. They should as intelligent citizens read the whole amendment. It threatens and paves the way for complete regimentation of our political, social and economic order. As physicians we should be interested in the health of the American people. Our plea is not for ourselves, however, we might be affected but an honest and intelligent plea that medicine must not be thrown under a one man control over every individual in our country. Politics and good medicine are not compatible. The voice of the profession against this bill is not enough. The voice must come from the people. Physicians cannot discuss this bill intelligently unless they not only take time to read it, but they must really study it. Our appeal must be for the people and not for ourselves. The writer does not desire to condemn all social legislation. On the contrary he believes that there was need and is need for portions of it. Let us fight for what is good in it and against what we deem bad.

R. K. Packard, M.D., Chairman
Committee on Medical Economics

SULFADIAZINE FOR MENINGITIS

The routine administration of sulfadiozine in all cases of meningococcic infections, which include meningitis, is recommended by Lieutenant Colonel Lewis Webb Hill and Captain Haseltine Smith Lever, Medical Corps, Army of the United States, in their report in *The Journal of the American Medical Association* for September 4 on an outbreak in an army camp. There were no deaths in 68 consecutive cases. This recommendation is supported by another report in the same issue of *The Journal,* made by Lieutenant Colonel Worth B. Daniels, Captain Sydney Solomon and First Lieutenant William A. Jaquette Jr., Medical Corps, Army of the United States.

Tuberculosis is an infectious disease but it is not to be confused with the acute infectious diseases in which the microbiological agents, bacilli, protozoa or viruses, dominate and determine the course and final outcome of the disease, mostly in a few days or weeks. Tuberculosis is a very chronic disease, the subsequent course of which after the primary infection has taken place, is determined by the social environmental conditions under which the individual is compelled to live, as well as by his hereditary constitution. G. Wolff and A. Ciocco. Amer. Rev. of Tuber. Aug., 1942.

EVEN IF LEGAL, ADDITION OF VITAMINS TO WHISKY WOULD BE UNDESIRABLE

"Even if it should become legal to add vitamins to alcoholic beverages, physiologic considerations would incline to make such formulas undesirable," *The Journal of the American Medical Association* for August 7 says in reference to the stability of vitamins in whisky. "Present government regulations make it illegal to add vitamins to alcoholic beverages. Nevertheless, the fact that many of the diseases associated with chronic alcoholism are due primarily to deficiencies in the vitamin intake of the excessive drinker make information on the stability of vitamins in whisky of more than academic interest. A. F. Novak and S. L. Adams investigated this question by fortifying a standard brand of 86.8-proof whisky with riboflavin, thiamine and nicotinic acid. Part of the whisky was exposed to daylight in clear bottles and part in amber bottles, and a control portion was stored in the dark. The result of the assays showed that riboflavin is unstable in whisky, since a reduction of 50 per cent of the amount added occurred in both paper-wrapped and amber bottles at the end of the two month period. At the end of six months assays indicated that loss of thiamine or nicotinic acid had not occurred and that these members of the vitamin B complex appear to be stable in whisky."

WAR WOUNDS

Clinical evidence suggested that if infection was to be avoided and first intention healing promoted, the following rules must be observed: (1) the operation must be performed within six or eight hours of injury, all devitalized and contaminated tissues being completely removed; (2) no deep layer of the wound must be sutured, but, on the contrary, deep fascia must be freely divided to avoid strangulation of muscles and permit normal vascularity despite reactionary edema; (3) a sulfonamide drug must be implanted locally in the form of powder or tablets; (4) the skin and the skin alone must be sutured; (5) the sutured skin must be dried by exposure to the air and not covered with dressings or plaster which become sodden, and, by macerating the skin, encourage the growth of skin organisms.—*R. Watson Jones, Bulletin of War Medicine.*

Medicine's Role in the War Effort

PLAN FOR THE ALLOCATION OF INTERNS AND RESIDENTS IN HOSPITALS, 1944

Approved by Directing Board, Procurement and Assignment Service

In view of changing needs, both civilian and military, and of the last year's experience in attempting an allocation of hospital house staffs, a new allocation plan has been developed. It involves three major changes. The first of these is that internships and residencies are being changed over from a twelve to a nine month base period to remedy the difficulties inherent in a nine month medical school year and a twelve month hospital year. The second is that certain essential commissioned men will be permitted to give some service as hospital residents, under conditions outlined here. The third is that interns as well as residents are included in the allocation plan. One of the reasons for this change is that hospitals which have shifted from two year to one year internships have drained by approximately 1,400 the supply of interns which would in earlier years have been available to smaller hospitals.

COMPLIANCE

This year certain hospitals have failed to cooperate with the Procurement and Assignment Service plan because of their reliance on Selective Service deferments for the maintenance of their staffs. Since Selective Service deferment of residents is rapidly becoming a thing of the past, hospitals will find it of great advantage to cooperate with the Surgeons General and the Procurement and Assignment Service in this new allocation plan, which is designed to provide an equitable distribution of the house staff members available.

SHIFT FROM TWELVE TO NINE MONTH BASE

There has been general dissatisfaction with the three month overlapping of intern and resident services, which have been wasteful of urgently needed medical manpower.

To remedy this situation the Directing Board of Procurement and Assignment Service proposed on the recommendation of its Hospital Committee that a nine-nine-nine month plan be adopted. For those men who would be commissioned the proposal was:

The internship should be reduced from twelve to nine months.

One half of the interns should be retained for a second nine months as assistant residents.

One half of that group should be retained for a third nine month period as residents.

AGREEMENT WITH SURGEONS GENERAL

This proposal has been accepted by the Surgeons General of the Army and Navy in this modified form:

The internship shall be reduced to nine months.

One third of the interns who hold commissions in the Army and Navy may be deferred for nine months (tenth to eighteenth months).

One half of this number or one sixth of the total number of commissioned interns may be deferred for an additional nine months (nineteenth to twenty-seventh months).

Acceptance of the plan by the Surgeons General is conditional on agreement by the state boards of medical examiners that eligibility for licensure of those who receive only nine months' internship will not be impaired and with the understanding that internships shall begin within thirty days after the completion of the medical course and that hospitals will limit their appointments of interns and residents to individuals who hold commissions or who have been officially rejected for commissions in the armed forces.

DEFINITION

In the interest of uniformity under this program the Procurement and Assignment Service will classify house officers as follows: interns during the first nine months, assistant residents during the second nine months and residents during the third nine months of hospital service.

The Procurement and Assignment Service believes that minimum adequate hospital medical service can be provided only if each hospital exerts every effort to obtain and retain women and physically disqualified house officers, since the number of men to be deferred by the armed services will not be adequate

to meet even the minimal needs for hospital residents, and since the Procurement and Assignment Service cannot assign men to house staff positions.

The overall cut will be about one third. For the average hospital the allocation for 1944 will be somewhat less than two thirds of the 1940 number of residents and two thirds to three fourths of the 1940 number of interns.[1] It will be necessary in general to make proportionate cuts from 1940 in the new house staff quotas with certain adjustments for present teaching loads and pronounced shifts in patient population. The number of house staffs included in the quotas of the individual hospitals will include women physicians and all male physicians whether or not physically disqualified and whether or not commissioned. The allocation of this personnel will be primarily on the basis of the needs for civilian medical care.

CHANGE OVER TO NINE MONTH PLAN

Under this plan two thirds of all commissioned interns now in hospitals will be eligible for orders to active duty on or about Jan. 1, 1944 (nine months after the beginning of their internships) and at about the time the new graduates will be beginning their internships.

In many hopsitals there are residents holding commissions who have already been deferred by the Army or Navy until July 1, 1944.

On their departure certain house staffs will be reduced below the quota level for three months. For most hospitals this will come at a time of relatively low census. In cases of extreme difficulty every effort will be made by the Procurement and Assignment Service to assist the hospitals through this three month period.

PROCEDURES

All hospitals have been asked to submit immediately analyses of their present and past situations for the purpose of facilitating this allocation for 1944. Based on this information and on field studies now in progress, the Hospital Committee will complete its estimates of the total number of physicians who will be available for house staff positions in 1944. With this information the committee will set house staff quotas for each hospital and from them build state quotas. In setting tentative quotas by the Procurement and Assignment Service for individual hospitals, consideration will be given to obvious injustices which might occur in a too arbitrary application of the allocation plan.

Each state will be required to remain within its total quota; that is, no requests will be granted for deferments which would bring a state total over the quota established for that state. The state chairman may find it desirable to make certain changes in hospital allotments within the limits of his total state quota. Such changes will be subject to appeal and review at the national level. State chairmen will receive requests for deferments from hospitals and transmit them to the Washington office of the Procurement and Assignment Service, which will review them and make recommendations to he Surgeon Generals.

A commissioned intern may move to a second hospital at the end of his nine or eighteen month service, so a hospital may ask for the service of a commissioned intern or assistant resident from another hospital for a nine month assistant residency or residency. In other words, movements of physicians on house staff shall not be discontinued or discouraged as long as the physician desires the hospital service and the hospital and state remain within their quotas.

1. The 1940 figure for interns includes all physicians reported as interns by the educational number of The Journal of the American Medical Association regardless of the length of their appointment.

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METHOD OF SELECTING PREMEDICAL AND PREDENTAL STUDENTS FOR ENTRANCE IN THE MEDICAL AND DENTAL SCHOOLS

The Bureau of Naval Personnel of the Navy Department has announced that students shall be selected for medical or dental training in the V-12 Program on the basis of their potential professional ability and on their records through the end of their third premedical term. Selection shall be made as early as practicable in the fourth term of the applicant's premedical work with the two following exceptions:

(a) For the first such selection, men who have already advanced beyond their fourth term will be considered on the basis of their work through the last term completed.

(b) Former apprentice seamen V-1 and V-7 who were accepted by approved medical schools or accredited dental schools prior to July 1, 1943 will be assigned to the schools which accepted their applications without further review of their credentials by the Committee of Deans referred to.

For both medical and dental students there is to be a committee in each naval district composed of deans of the medical or dental schools, or their representatives, in the district and the district training officer as a consultant member. which shall be requested to prepare lists of premedical and predental students for consideration for medical training. The Bureau of Naval Personnel will assign students from these lists to fill available vacancies in approved and accredited dental and medical schools throughout the country on the following basis:

(a) In the case of a nationwide excess of qualified students, the same percentage of qualified students from the top of each list down is to be assigned to medical and dental training from each district.

(b) All men selected in accordance with the foregoing procedure who complete premedical work at the end of a given Navy V-12 term are to enter medical or dental school before men finishing their premedical or predental studies at the end of a later term.

(c) Men selected for medical or dental training are to be assigned to schools in their districts if possible without violating (b). If not possible to assign men to schools in their districts, they will be assigned to schools in the nearest districts that have vacancies.

(d) Men are to be assigned to the school of their choice if possible without violating (b) or (c).

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NEW DISPENSARY HOSPITAL UNITS

The Bureau of Medicine and Surgery of the Navy has announced that new dispensary hospital units have been completed at six auxiliary airfields in Florida, each containing ward facilities for 42 patients, x-ray equipment, complete laboratory facilities, flight surgeons' instruments, examining room and the usual medical, surgical and pharmacy facilities. Three medical and two dental officers will be assigned to each unit.

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AVIATION MEDICAL EXAMINERS

Graduation exercises were held at the School of Aviation Medicine, Randolph Field, Texas, on July 15, following completion of the course for aviation medical examiners. The didactic portion of the course was conducted at Randolph Field, Texas, and the practical portion of the course at the three army air forces classification centers. The list of Illinois graduates follows:

Edward M. Baskerville, Captain, Joliet.
Thomas J. Bonick, 1st Lieut., Chicago Heights.
Sheldon S. Brownton, Lieut. Col., Rantoul.
William H. Delicate, Captain, Edwardsville.
Willis G. Diffenbaugh, Captain, Chicago.
Allan Michel Goldman, Captain, Chicago.
Kendall Decatur Gregory, Captain, Decatur.
Stanley R. Grudzien, 1st Lieut., Chicago.
Joseph H. Kaplan, 1st Lieut., Rockford.
Clayton J. Lundy, Major, Chicago.
Foster L. McMillan, Major, Chicago.
Kenneth J. Malmberg, 1st Lieut., Auburn.
Hosmer T. Merrell, 1st Lieut., Chicago.
John E. Miller, Captain, Quincy.
Joseph M. Mitrick, Captain, Chicago.
Milton M. Mosko, Captain, Chicago.
William H. Orcutt, Captain, Chicago.
Harry J. Parker, 1st Lieut., Chicago.
Charles E. Pugh Jr., 1st Lieut., Chicago.
Peter A. Reierson, Captain, Manteno.
Louis P. River, Major, Oak Park.
Frank J. Saletta, 1st Lieut., Chicago.
Albert Frank Stein, Major, Chicago.
Joseph G. Stone, 1st Lieut., Cicero.
Henry S. Swiontek, 1st Lieut., Berwyn.
Max T. Van Orden, 1st Lieut., Chicago.
LeRoy E. Walter, 1st Lieut., Chicago.
Harold H. Was, 1st Lieut., Chicago.
Charles L. Watters, 1st Lieut., Geneseo.
Tom L. Weber, 1st Lieut., Olney.

★ ★

THE U. S. CADET NURSE CORPS

Surg. Gen. Thomas Parran, U. S. Public Health Service, Miss Lucile Petry and Mrs. Eugenia K. Spalding, director and associate director respectively of the U. S. Cadet Nurse Corps, have completed a nationwide tour in response to a request from the National Nursing Council for War Service and the American Hospital Association to provide first hand information to hospitals and nursing schools about the new Nurse Corps. The tour began at Harrisburg on August 9 and ended at Seattle on September 1. Great interest has been shown in this new program, which will provide nursing education without cost to the student. This is not a federally standardized program, Dr. Parran said; corps members will attend any of the thirteen hundred accredited nursing schools that meet requirements of the law. The quota for the corps is 65,000 new student nurses this year. They will receive monthly allowances of from $15 to at least $30, and during the final period of training maintenance and monthly allowances will be paid by the school of nursing or hospital.

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PHARMACY CORPS ESTABLISHED IN MEDICAL DEPARTMENT

The Seventy-Eighth Congress passed Public Law No. 130 establishing a Pharmacy Corps in the Medical Department of the Army to consist of seventy-two officers in grades from colonel to second lieutenant. Appointments in the Pharmacy Corps will be made in the grades of

second lieutenant from pharmacists between 21 and 32 years of age who are graduates of recognized pharmacy schools requiring four years of instruction, under such regulations as the Secretary of War shall prescribe. Officers of the Pharmacy Corps will be promoted to first lieutenant after three years' service, to captain after six years' service, to major after twelve years' service, to lieutenant colonel after twenty years' service and to colonel after twenty-six years' service, provided officers in the Regular Army holding commissions in the Medical Administrative Corps on the date this law was enacted shall be transferred to the Pharmacy Corps and commissioned in grade in that corps in addition to the seventy-two officers authorized for the Pharmacy Corps. The act was approved on July 12.

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HOW HOSPITALS CAN EASE THE NURSING SHORTAGE

According to the American Red Cross, Army nurses are now on duty in 537 stations in the United States and in 28 countries outside the United States: Africa, Alaska, Aruba, Australia, Bermuda, Canada, Egypt, England, the Fiji Islands, Greenland, Hawaii, Iceland, India, Iran, Ireland, Jamaica, Newfoundland, New Caledonia, New Guinea, New Zealand, Pantelleria, Palestine, Panama, Puerto Rico, Philippine Islands, South America (Brazil), Sicily, Trinidad.

Navy nurses are on duty in 212 stations in the United States, including all naval air stations in the interior. They are assigned also to 27 countries outside the continental United States, including Alaska, Hawaii, Puerto Rico, Cuba, the Panama Canal Zone, Australia, Trinidad, the Virgin Islands and many of the islands of the South Pacific. They are at work on the two navy hospital ships *Solace* and *Relief* and will go on duty on the two new hospital ships after they are commissioned.

Nurses of the Army and Navy are flying to distant outposts to bring back wounded soldiers to general hospitals to the rear of the battle fronts or in this country; they are serving on troop transports which fly through enemy infested waters in every part of the globe; they are working in tent hospitals so close to the fighting that a helmet is an essential part of their uniform; they are helping pick up the wounded in the South Pacific who without their ministrations on hospital ships might have died. Courageous and devoted to duty, they are hailed as "good soldiers" in hundreds of hospitals in this global war.

Definite ways in which hospitals can make adjustments so as to ease the nursing shortage and make it possible for more nurses to be released for military duty without endangering life and health of their patients are:

1. Increased use of Red Cross Volunteer Nurse's Aides.

2. Increased use of part time graduate nurses who are not able to give full time; this will mean adjustment to time honored schedules so as to suit the convenience of married women with home responsibilities.

3. Use of special nurses for critically ill patients only.

4. Increased use of group nursing so as to allow one special nurse to care for 2 or more patients.

5. Elimination of all luxury nursing, regardless of the financial status of the patient.

6. Careful study of nursing practice, so as to limit nurses to the carrying on of professional duties only, thus turning over more duties to nonprofessional aides.

7. Careful screening of surgical operations so as to include only urgent cases.

8. Better understanding on the part of hospital management, including board members, that it is their patriotic duty to allow nurses to join the Army or Navy and to put no obstacle in their path.

9. Adherence to regulations about visiting hours.

10. Prescribing of certain hours for the delivery of flowers for patients.

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WACS TO BE ENROLLED IN ARMY-NAVY HOSPITAL SCHOOL

The War Department announced on August 19 that new opportunities have been opened to members of the Women's Army Corps for training and service in the Army Medical Department. Beginning September 10 the first of more than a thousand members of the WAC will be enrolled in the Army-Navy Hospital School, Hot Springs, Ark., in military hospital

training courses. Graduates will be assigned to duty at general and station hospitals. This action is indicative of the opportunities that will present themselves to members of the Women's Army Corps. Each Wac selected to attend the school will be given training in one of five courses. New classes will be started on the tenth day of each month. Three of the courses, those for training x-ray technicians, are of three months' duration. For each of these forty-five women will be selected initially. Courses for training medical and surgical technicians are of two months' duration, for each of which a hundred WACs will be selected initially. The new field of training now opened to members of the WAC has heretofore been restricted to male military personnel.

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BLOOD DONOR SERVICE

A Statement on the Functions of the American Red Cross Blood Donor Service

Frequent requests are made to the American Red Cross to supply whole blood or blood plasma to individuals, to hospitals and to Army or Navy medical units in this country. The requests are based largely on misunderstandings of the functions of the Red Cross Blood Donor Service. In order to clear up these misunderstandings the following statement is issued with the approval of the Medical Services of the Army and Navy:

1. The Red Cross Blood Donor Service is the only agency through which the people of this country may give their blood to the Army and Navy for the production of dried plasma or serum albumin.

2. No facilities are provided for procuring whole blood from volunteer or paid donors for transfusions to be used either by the public or by Army and Navy medical personnel. The Red Cross Blood Donor Service is not a blood bank service.

3. All blood procured by the Red Cross Blood Donor Service is delivered immediately to processing laboratories, where it becomes the property of the Army or Navy. Most of the blood is processed into dried plasma or serum albumin to be used for the armed forces in foreign service or on naval vessels. Some of the blood, however, is processed into liquid plasma for use in military hospitals in this country. The Red Cross has no jurisdiction over the distribution of these blood substitutes and therefore cannot furnish them to any one.

4. The Medical Services of the Army and Navy have adequate supplies of liquid plasma for use in their hospitals in this country, which may be obtained by medical officers through regular channels as follows:

The source of supply for the Army has been set forth in an army circular letter which reads:

Thawed blood plasma (liquid plasma) is available to all army station and general hospitals within the continental United States. Liquid plasma will be supplied by processing centers as follows:

(a) Army Medical School, Washington, D. C., will supply the first, second and third service commands.

(b) LaGarde General Hospital, New Orleans, will supply the fourth and fifth service commands.

(c) Fitzsimons General Hospital, Denver, will supply the sixth, seventh and ninth service commands.

(d) The Eighth Service Command Laboratory, Fort Sam Houston, Texas, will supply the eighth service command.

A supply of blood plasma for naval hospitals may be obtained by applying to the Commanding Officer, U. S. Naval Medical School, Naval Medical Center, Bethesda, Md.

5. All inquiries to the Red Cross from medical officers of the Army or Navy should be answered with the foregoing information.

6. All military units on foreign service or naval units on sea duty are being provided with adequate supplies of blood plasma or serum albumin as determined by the representatives of the Surgeon Generals.

7. The Army and Navy have agreed to use blood plasma obtained only through regular military channels.

G. Canby Robinson, M. D.
National Director,
Blood Donor Service

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MORE PHYSICAL THERAPY AIDES WANTED

Physical therapy aides are now serving in 140 army hospitals in the United States and in 32 overseas. The administration of physical therapy requires knowledge of anatomy, physiology and pathology. It includes treatment by means of massage, exercise, electricity, water and various forms of heat. The Medical Department has expanded its training program so that student physical therapy aides are being trained at Walter Reed General Hospital, Washington, D. C.; Fitzsimons General Hospital, Denver; Brooke General Hospital, Fort Sam Houston, Texas; Army and Navy General Hospital, Hot Springs, Ark., and O'Reilly General Hospital, Springfield, Mo. Over twenty civilian institutions are also cooperating in training physical therapy aides. Many of these courses have been intensified and reduced to courses of six months' duration to meet the emergency. Civilian hospitals conducting such courses are Children's Hospital, Los Angeles; College of Medical Evangelists, Los Angeles; University of California Hospital, San Francisco; Stanford University, Palo Alto, Calif.; Northwestern University Medical School, Chicago; State University of Iowa Medical School, Iowa City; Bouve-Boston School of Physical Education, Boston; Harvard Medical School, Cambridge, Mass.; Boston University-Sargent College of Physical Education,

Boston; University of Minnesota, Minneapolis; Mayo Clinic, Rochester, Minn.; Barnes Hospital, St. Louis; St. Louis University School of Nursing, St. Louis; University of Buffalo School of Nursing, Buffalo; Hospital for Special Surgery, New York; New York University, New York; Cleveland Clinic Foundation Hospital, Cleveland; D. T. Watson School of Physio-Therapy, Leetsdale, Pa.; Graduate Hospital of the University of Pennsylvania, Philadelphia; Richmond Professional Institute, Richmond, Va.; University of Wisconsin Medical School, Madison.

To be eligible for appointment as a Medical Department physical therapy aide on a military status an applicant must have completed two years in an approved college with emphasis on physical education or biologic science, or graduated from an accredited course in nursing; and, in addition to one of the foregoing, completed a training course in physical therapy approved by the Surgeon General. She must be at least 5 feet tall and weigh 105 pounds, must not have passed her 45th birthday, must be a citizen of the United States or a cobelligerent or friendly country, must meet the physical requirements as prescribed in Army Regulations and have no dependent children under 14 years of age.

Current Army needs are for 1,000 additional trained physical therapy aides. They are being recruited through the Officer Procurement Service, located in each of the nine service commands of the Army and in the large cities.

On Dec. 22, 1942 the President signed Public Law No. 828, which brought physical therapy aides into the Army on the same basis as Army nurses. Under the act the aides receive an initial issue of clothing, including six regulation white uniforms and caps, a woolen street uniform, woolen cape, shoes, purse and other articles. The only difference in the appearance of Army nurses and physical therapy aides is in the insignia worn. Army nurses have the letter N on the caduceus while physical therapy aides have the letter PT on the caduceus.

SULFAMERAZINE AVAILABLE

Sulfamerazine, a new compound that simplifies dosage and lowers costs in sulfonamide therapy, is now available for general use in the treatment of infections due to hemolytic streptococci, meningococci, pneumococci and gonococci. Developed at the Medical-Research Laboratories of Sharp & Dohme, sulfamerazine has been subjected to extensive pharmacologic investigation and was studied clinically in the treatment of about 2,000 patients prior to its release.

The chemical name for sulfamerazine is 2-sulfanilamido-4-methylpyrimidine, or monomethylsulfadiazine. In comparison to sulfadiazine and sulfathiazole, sulfamerazine is more rapidly and completely absorbed from the gastrointestinal tract and more slowly eliminated by the kidneys. Thus, therapeutic concentrations in the blood and tissues are produced and maintained by smaller or less frequent doses of sulfamerazine as compared to other sulfonamide compounds. This characteristic is an important advantage in the treatment of critically-ill patients who must be disturbed as little as possible. For example, in acute infections as little as possible. For example, in azine or other sulfonamide daily, the same therapeutic results may be obtained with a minimum of inconvenience to the patient — and at proportionately lower cost — by only two or three doses of sulfamerazine. Adequate serum concentrations of sulfamerazine may be maintained by oral administration of 1 Gm. every 8 hours, following an initial dose of 3 or 4 Gm. In acute gonococcic infections, 1.5 Gm. of sulfamerazine every 12 hours has been suggested. Equally well-sustained therapeutic concentrations may be achieved more rapidly by intravenous administration of sodium sulfamerazine in solution.

Sulfamerazine has been referred to as the most outstanding advance in sulfonamide therapy since the introduction of sulfanilamide. Historically, sulfapyridine followed sulfanilamide but, although possessing the added advantage of being more effective in the treatment of pneumonia, it has a relatively high toxicity. Sulfathiazole and sulfadiazine, introduced later, proved less toxic. Sulfamerazine, with toxicity not exceeding sulfadiazine and more efficient therapeutically on a dosage basis, possesses three outstanding additional qualities: First, more rapid absorption following oral administration, thereby minimizing the need of intravenous therapy; second, more complete absorption, resulting in higher blood levels, and, third, longer retention, resulting in reduction of the total dosage or, what is more important, prolongation of the time interval between doses.

In addition to its greater therapeutic efficiency, sulfamerazine is no more expensive to produce than sulfadiazine, and the smaller dosage of sulfamerazine means a decided economy to the patient. Because of these advantages, it is anticipated that sulfamerazine will rapidly displace the sulfonamides now commonly used.

Sulfamerazine is supplied by Sharp & Dohme in 0.5 Gm. and 0.25 Gm. tablets; 1 Gm. vial Chemical Reagent; and Sodium Sulfamerazine, 5 Gm. vial of sterile powder for intravenous administration.

Once I had a little pet bird
Had the prettiest voice you ever heard
But he's gone
Some cat got him

Then I had a little pet mouse
Dazzling squirming little mouse
But he's ate
Some cat got him

Once I had a handsome beau
He had a bus
Lots of cash to spend you know
I could cuss
Some cat got him

Original Articles

THE EVALUATION OF THE PATIENT WITH HEART DISEASE AS A SURGICAL RISK

LAWRENCE E. HINES, M.D.
CHICAGO

The difficulty of deciding when a patient with heart disease can tolerate a surgical procedure may be illustrated by the following case: G. A. an obese white male aged 42 had been hospitalized for two months for coronary thrombosis in 1941. Symptomatic recovery was complete. He remained well until nine months later when the car he was driving collided with a post. He sustained a dislocation of the right hip and when he arrived in the hospital he was in shock. Later he developed left ventricular failure with pulmonary edema. For ten days no attempt was made to reduce the dislocation because of shock and heart failure. Then because the obesity and helpless leg was causing such great discomfort it was decided that the risk of surgery was justified in spite of an obvious hazard. The reduction of the dislocation was affected by manipulation after only five minutes of ethylene anesthesia but death occured before he gained consciousness.

This case suggests the complexity of the problem. It is evident that simple rules cannot be formulated for the problem. Occasionally surgery in a patient with normal cardiovascular apparatus is capable of precipitating such fatal incidents as pulmonary emboli, coronary thrombosis, ventricular fibrillation or cardiac standstill. In the patient with heart disease we have this small risk plus whatever additional risk is added by the heart disease. To evaluate this added risk we must base our judgment on sound principles: First an accurate complete heart diagnosis must be made; second the prognosis of the abnormalities found in the heart must be known; third the urgency of the surgery should be ascertained; and fourth if the surgery is classed as urgent the degree of helplessness of the heart disease should be estimated.

As an outgrowth of efforts by the American Heart Association most hospitals and clinics require for complete heart study an etiologic, anatomic, physiological and functional diagnosis. In many instances the information obtained from a careful history and physical examination will supply enough information to complete the diagnosis. In other cases Roentenograms of the heart, electrocardiograms and other laboratory procedures are required. When the diagnosis has been made the prognosis can be considered. This must be based on statistical studies, personal experiences and the recorded experiences of others. The variation in prognosis is as wide as the variation in types of heart disease and must be discussed according to each type.

The Etiologic Type: Age is the most important etiological factor in the mortality of heart disease during surgery. In a series studied by Sprague two thirds of the mortality from heart disease during surgery occurred in patients over 50 years. The hypertensive who has not yet acquired arteriosclerotic changes in heart or kidneys is well able to tolerate surgery. However the drop in blood pressure which is produced during spinal anesthesia should make us cautious of using this anesthetic if the patient has hypertension.

Read before the Section on Medicine, 103rd Annual Meeting, Illinois State Medical Society, Chicago, May 18, 1943.

Patients with inactive rheumatic heart disease with normal sinus rhythm and no congestive failure stand surgery with little added danger. If syphilis is the etiologic agent the hazard of sudden death is increased. The exact reason for this is not known. The thyrotoxic heart is usually considered a good surgical risk. Active infections of endocardium or myocardium of known or unknown bacteriology and toxins affecting myocardium present serious problems.

The Anatomical Type: Patients with uncomplicated valvular heart disease who show no abnormal mechanism and who are not in congestive failure are exceptionally good risks. Elective surgery is justified for patients of this type. It might be permitted to generalize here to the effect that murmurs are no contraindication to surgery or anesthesia.

The lesions of coronary arteries and myocardium produced by arteriosclerosis comprise a group responsible for many unexpected deaths during the operation or afterwards. Here such entities as coronary thrombosis, myocardial fibrosis, or so called fibrous myocarditis may not be apparent unless the heart study is complete and careful. Electrocardiograms often reveal changes which would otherwise remain unknown in patients of this group. Perhaps routine electrocardiograms in the middle aged and elderly groups would reveal enough obscure lesions to warrant its use. Certainly if anesthesia and the shock of surgery is added to an imminent or beginning thrombosis of the coronary artery the result might be fatal. Sudden deaths in this group are attributed to ventricular fibrillation, acute dilatation, acute left ventricular failure and occasionally rupture of the heart. In the convalescent period patients in this group may develop congestive failure.

The aortic or ventricular aneurysm are lesions which also present great hazards during surgery.

The Physiologic Type: The abnormal mechanisms encountered before surgery should be accurately diagnosed and confirmed by the electrocardiogram. Sinus arrhythmia is a harmless type and should be disregarded. Occasional premature contractions or extrasystoles do not prove the existence of heart disease. Even anesthesia can produce them. Multiple extrasystoles should be viewed with more concern but by themselves are not sufficient to contraindicate surgery. Auricular fibrillation per se adds a hazard to surgery because of the higher incidence of embolic phenomena and also because the fibrillating heart is more likely to develop congestive failure. Unless the surgery is urgent there should be postponement until digitalization or other therapy renders the heart safer. Thyroid patients with auricular fibrillation tolerate surgery better than any other etiologic type.

Paroxysmal tachycardia is occasionally initiated by anesthesia and occasionally develops in the convalescent period. The mechanism itself does not usually represent serious underlying disease but it may produce shock or aggravate such a tendency by further lowering the blood pressure. Paroxysms of auricular fibrillation and auricular flutter may also induce shock in the same way.

The various forms of block cannot be placed in one category. It is probably better to evaluate the seriousness of such patients on the basis of the underlying myocardial lesion. Complete heart block per se offers an additional hazard because of the danger of fatal attack of Adams Stokes syndrome.

In the analysis of the heart the most important question to answer is whether or not there is congestive failure. This is determined chiefly by the history of dyspnea, cough, fatigue on exertion and findings of congestion in lungs, liver or other viscera. Although congestive failure presents an infinite variation in degrees of severity, it is generally a safe rule to advise operation only for the most urgent indications even if the decompensation is mild. Here the surgical condition must dictate the decision. If it is safe to dictate the decision. If it is safe to delay, approdelay, appropriate treatment by rest, digitalis, or mercurial diuretics will render the surgery safer.

The analysis of the risk involved by angina pectoris not complicated by coronary thrombosis may be very difficult. It is well known that patients may live as long as thirty years with severe attacks of angina pectoris. Whether they die in a chair at home or on an operating table one guess is as good as another. In studying the risk such surgical diseases as diaphragmatic hernias might be undertaken more readily because it is capable of causing the attacks.

An estimation of the urgency of the surgery is important at all times. Ruptured viscera, a gangrenous extremity, acute appendicitis are

examples that could be classed as extremely urgent and an indication for surgery regardless of how sick the patient is. At the other end of the scale the patient with an ovarian cyst, a fibroid or gall stones would represent a type in which surgery should be performed only when the heart disease is mild.

The patient classed as helpless includes one with heart failure of long standing unable to respond further to treatment. In such a patient even surgery of urgent type is optional.

SUMMARY

The evaluation of the heart patient as a surgical risk is frequently difficult. The decision should be made as the result of: A complete heart diagnosis derived after careful study of the patient; a knowledge of the prognosis of the various heart abnormalities; and an estimate of the urgency of the surgery.

DISCUSSION

Bertram J. Fitzgerald, M.D. (Chicago): Anesthesia constitutes one of the most important questions that arise in the surgery of the cardiac. Many anesthetics are available and a brief discussion of them is in order. Guedel states that certain circulatory accidents during anesthesia are due roughly to either an increased blood pressure, a decreased blood pressure or ventricular fibrillation.

The prerequisites of a good anesthetic are first, quick induction. This is important because any struggling during induction affects the blood pressure and places a direct load upon the heart muscle.

The second is oxygenation. This is important, obviously, because anoxemia from any cause lowers the efficiency of the heart. Adriani states that anesthesia complicated by anoxia is accompanied by rises in blood pressure, increased cardiac irritability, changes in rhythm and other circulatory disturbances.

The third prerequisite is relaxation. This is of particular importance in abdominal surgery inasmuch as the time required for surgery is materially decreased. This, in turn, reduces the possibility of shock and continued anoxia.

Trauma incident to the handling of tissues is one of the foremost factors in the production of shock.

Of the various anesthetics, chloroform is contraindicated because it is directly toxic to heart muscle and should not be used. Intravenous anesthesia is questionable because of the variability in the response of the patient to a given dose. It has a depressing action on respiration and the fall in blood pressure very often complicates it.

Rectal anesthesia produces a fall in systolic blood pressure shortly after administration. This fall in blood pressure, together with the depressing effect on respiration, makes it of questionable use in the cardiac patient.

Cyclopropane, while it permits of a large amount of oxygen, is known to produce many cardiac irregularities and arrhythmias, particularly when used for deep anesthesia. Wirth states that there may be either a rise or fall in blood pressure and that postoperative shock occurs frequently with this anesthetic.

Ethylene and nitrous oxide are capable of quick induction but have the disadvantage of a low oxygen percentage and do not produce as much relaxation as is desired for many procedures. They do not affect the heart rate and the blood pressure is little affected. They are suitable for short procedures and where relaxation is not important.

Adriani states that "unless adequate premedication is used, a certain degree of anoxia always accompanies anesthesia with these agents. Anoxia superimposed upon nitrous oxide or ethylene may be followed by respiratory and cardiac failure and transient or even permanent damage to the central nervous system." He states that "accidents with these agents are the result of asphyxia produced by too great a reduction of O_2 tension."

Local infiltration or block anesthesia has definite advantages, especially in short procedures. However, in large amounts it may cause changes in blood pressure and so influence the heart. Psychic stimuli also are present and may have a deleterious effect on heart action. Local anesthesia is not ideal for long procedures.

Adrenalin, so commonly employed in conjunction with local anesthesia, is contraindicated in most cardiac conditions.

Spinal anesthesia, now greatly in vogue, is very questionable in cardiacs because of the tendency of a marked fall in systolic blood pressure with a sustaining diastolic pressure. This results in a decreased pulse pressure, a decreased cardiac output and often a bradychardia and shock. Wirth states that it is contraindicated in any patients with hypertension or in any who have an indication of cardiovascular disease.

Ephederine and adrenalin are commonly used to counteract this fall in blood pressure and they also are deleterious to heart action.

Fractional spinal anesthesia does not produce such marked changes in blood pressure and the perfection of this technique may obviate the evils of spinal anesthesia. Also in spinal anesthesia the Trendelenberg position is usually necessary and this is definitely a bad position for cardiacs. Pulmonary ventilation is decreased, a greater load is placed on the heart and there is greater danger of anoxia. Psychic stimuli are also present in all spinals and may have a bad effect on the heart.

Ether causes some acceleration of the cardiac rate, but otherwise has little effect upon the myocardium. It produces good relaxation. It has the disadvantage of slow induction. However, this can be overcome by the use of ethylene or nitrous oxide as the inducing agent followed by ether and oxygen. A much higher concentration of ether can be tolerated by the patient following an induction with ethylene

or nitrous oxide. Given by the closed method the amount of oxygen can be definitely controlled. By this method the cardiac muscle is spared in every way possible. The quick induction obviates the initial anoxia, the controlled continuous oxygen helps the action of the heart muscle, and the relaxation obtained helps the surgeon to shorten the time of operation and to minimize the shock incident to handling of tissues.

The post operative use of carbon dioxide and oxygen will cut down the period of recovery.

LT. Col. Ford Hick (Chicago): May I ask if the author has had any experience with the freezing of the extremities? This might be important in diabetic gangrene that might come in as an accompaniment of arteriosclerosis.

I should like to tell you a story which has no particular point. Several years ago I saw a patient who had had a coronary thrombosis. A few days after the coronary, he was still a little wobbly; the doctor decided it was time to take out the carcinoma of the sigmoid that he had known he had had for several months. Several people advised against it, so surgery was performed anyhow and the man survived.

I. F. Volini, M.D. (Chicago): I think that Dr. Hines has brought a very important subject to our attention. I lean a little more to the surgeon's point of view. Circulatory disease is not synonymous, of course, with circulatory failure. Most of our methods of determinations, I believe, are not sufficiently adequate to determine in mass percentages, the ability to withstand surgery.

I feel as though many patients are benefited by operative procedures in the presence of certain cardiac disabilities, notably hypertension.

Some years back I published a paper in the Journal of the American Medical Association indicating that there was just as much improvement in individuals who were operated on in the presence of hypertension with demonstrable cardiac enlargement and evidences in many cases of cardiac disability, — that such individuals from non-specific operations such as hysterectomies, gall bladders, etc., received just as much benefit for their hypertension as did the individuals who were operated on by the so-called specific operative procedures for hypertension as practiced by the neurosurgeons.

I think it is more important to recognize that the subject of shock is not heart disease or heart failure. Shock in itself is a peripheral vascular failure and the mention of anoxemia, of course, as has been made, indicates that this factor is not necessarily a factor in the reduction of the efficiency of the heart but by inducing changes in the peripheral vascular system and in the nervous system, it induces increased capillary permeability, produces changes in the neurogenic control, so that shock on a vasogenic, hematogenic, neurogenic or other types of etiology can precipitate a collapse which is peripheral circulatory in origin and has nothing to do, in my estimation, with the heart's activity.

I might mention a story which is quite illuminating just as Dr. Hicks' case was, where a patient who was very difficult to control complained of severe abdominal pain and he was unable to manage. This individual was in a considerable degree of pain and shock and the differential diagnosis was, of course, difficult to make. We hovered between perforated peptic ulcer and a coronary thrombosis with a myocardial infarction.

It was finally felt that the lesser of the two dangers was an exploratory operation. No perforation for peptic ulcer was found. The patient was more easily controlled after the operative procedure, and I think even in such a case it was demonstrated subsequently that he had a coronary thrombosis and a myocardial infarction; that he really was benefited by the operative procedure, and went on and was easier to control and keep quiet after his surgery.

Ralph McReynolds, M.D. (Quincy): This paper suggests one question to me and that is, I'd like to ask Dr. Hines how often we have cardiac deaths in surgical cases in which the examination has been entirely negative.

Dr. Chauncey C. Maher (Chicago): I would like to ask Dr. Hines his opinion regarding surgical intervention in those patients who have had a coronary thrombosis and who have gall stones. A number of them have active gall bladder symptoms which appear to aggravate the coronary problem. Should they be subjected to operation, treated conservatively, and what can be done to evaluate the degree of risk?

Dr. Hines (closing discussion): I have had no experience, Dr. Hicks, in surgery, following freezing of gangrenous extremities. It is my understanding that the risk of surgery in this class of patients is materially lessened.

It was not my intention, Dr. Volini, to advise no surgery in patients with heart disease. As a class, patients with heart disease tolerate surgery exceedingly well. However, the more apprehensive we are about the patient with heart disease that needs surgery, the less fatalities we will have, and when we become careless about the idea of risk, then we will get into trouble.

At the beginning of the paper I pointed out that surgery itself is capable of producing death by causing ventricular fibrillation, by the initiation of coronary thrombosis, or by producing pulmonary emboli. This hazard is rather small. When you analyze the patient with heart disease you have to take into consideration these risks and add to it the extra hazard of the heart ailment.

Dr. Maher's question is an exceedingly difficult one and reminds me of the questions that he always asks me. The patient with gallstones has long been known to have a high incidence of angina and coronary disease, and there is no doubt but that if a patient of this type is made more comfortable by gallstone removal, he lives a better life.

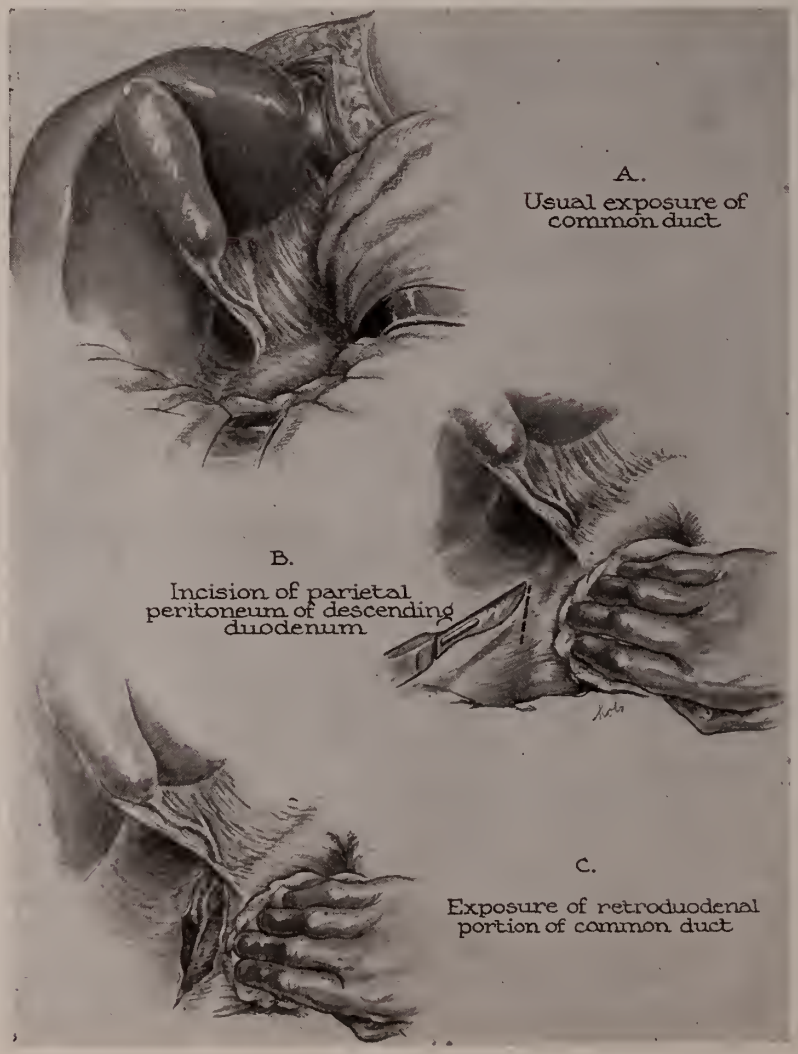
Occasionally I have had unpleasant experiences in this group which makes me rather conservative about advising surgery in the presence of gallstones. One patient who had the gallbladder removed successfully, died three months later from recurrent coronary thrombosis.

EXPOSURE OF THE RETRO-DUODENAL PORTION OF THE COMMON DUCT

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AND
HAROLD O. LAUFMAN, M.D.
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One of the most difficult problems with which the surgeon has to contend in operations on the biliary tract is presented by stones in the common duct. If these stones happen to lie in that portion of the common duct which lies above the duodenum, the approach to them is fairly obvious. If, however, the stone or stones are impacted lower down, that is in that portion of the common duct which grooves the head of the pancreas, or which lies within the wall of the duodenum itself, then the approach is extremely difficult unless the duodenum is mobilized. As a matter of fact it is in just these localities we have found impacted stones in a little over one quarter of the patients with common duct stone.

The differential diagnosis between impacted stone and carcinoma of the head of the pancreas may be exceedingly difficult even at operation. The oedematous, inflammatory condition secondary to a common duct stone causes a tumefaction which to all appearances resembles



the mass resulting from a carcinomatous obstruction of the common duct. Very frequently in order to differentiate between the two it will be necessary to mobilize the duodenum so that the entire lower portion of the common duct can be visualized.

Lastly, as only those who have done a large amount of gall bladder surgery know, stones in the common duct may be extremely elusive. The fact that a probe can be threaded through the duct into the duodenum only means that there is no stone obstructing the duct — not that there is no stone in the duct. We have repeatedly demonstrated at operation that we could pass a sound through the common duct into the duodenum without difficulty, and without noting any sensation of striking a foreign body although many stones were in the lower portion of the common duct at that time. Of late the procedure of getting a cholangiogram at the operating table has helped us greatly in avoiding the overlooking of stones, but we still feel that it is wise to mobilize the duodenum so we can inspect and palpate the entire length of the common duct in case there is any doubt.

Now the strange thing is that mobilization of the duodenum has been described innumerable times before — was emphasized by Kocher, was carefully noted by Kerr, was described by anatomists and recently was well described by Walters and Snell in their text book on gall bladder surgery and by Colender in his text book on surgical anatomy, and yet the majority of surgeons seem not to make use thereof.

Therefore, for the sake of emphasis and not to describe any new or untried procedure, we have the temerity again to call attention to this valuable bit of technique.

After the usual steps of the operation have been carried out to the point where the gall bladder, cystic duct and upper portion of the common duct have been exposed the assistant places his outstretched fingers on the duodenum and draws it downwards — caudelward and medially. This places the evascular peritoneal fold along the outer curve of the duodenum on a stretch. The peritoneum is cut with a scalpal as per the diagram. The index finger of surgeon can then be inserted into this incision and by blunt dissection the duodenum is very easily freed, the incision into the peritoneum being lengthened by cutting along the inserted index finger. Inasmuch as the blood supply to the second portion of the duodenum comes to it medially and from below the duodenum can be mobilized as freely as the colon by cutting along its outer edge. The mobilized duodenum can be turned back upon itself thus exposing the entire course of the lower common duct. The lower common duct can by this method be palpated and visualized.

We usually stitch the duodenum back into position with two or three interrupted sutures at the end of the operation although we are not at all sure this is necessary.

SUMMARY

We have called attention to the desirability of wide exposure of the common duct. This can be done by mobilizing the duodenum. The duodenum can be mobilized in the same manner that the colon is mobilized. We have described the technique for doing this.

THE IMPORTANCE TO THE ADOLESCENT GIRL OF GYNECOLOGICAL EXAMINATION

EDWARD ALLEN, M. D.
CHICAGO

The problems connected with the genital organs of the adolescent girl have recently become a very interesting theme of discussion in many and various medical gatherings. This reawakening of interest seems to be largely due to the rather sudden realization that this period has been, and still is, a sadly neglected one. A sort of no-man's land exists between pediatric and adult medical care. This sorry state of affairs is not only true for gynecological problems but for general medical problems as well.

The pediatricians have been largely responsible, and should receive the proper credit, for the mounting interest in this great field of preventive medicine. Undoubtedly an added impetus has come from the almost universal physical examination of our youth which has occurred

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during the war effort. The vast number of physically and mentally unfit young people should be a challenge to all of us.

Earlier remedial or preventive measures will make for the near critical future a sturdier and more stable race. The widespread induction of young women into the armed forces and strenuous duties of war work will undoubtedly uncover an additional large number of hitherto unsuspected weaknesses in their physical and psychological setups. Our adolescent girls will need all the help we can give them during the present period of unrest and particularly during their post-war adjustments.

We, as a profession, can no longer profitably leave to the social and governmental agencies the duty of routine physical examinations and preventive medicine. We have at times been grossly negligent in our duties in this respect, reserving our training and energies for the cure rather than the prevention of disease.

Many of the educational programs which we have begun for the early recognition and cure of disease have failed to a large degree because we have taught both our doctors and patients to come for an examination only after symptoms have appeared. In fact I believe that the laity is far ahead of us as a profession in its desire to have and its willingness to undergo routine complete physical examinations. The rapid growth of medical institutions founded on the basis of routine complete examinations are ample evidence for this statement. People are no longer satisfied with lackadaisical medicine.

Cancer control is a notable example of this state of affairs. We are findng only a few more early carcinomas of the cervix, ovary, and breast than we did twenty years ago. During the year of 1940, 36,412 women died in the United States from carcinoma of the genitals.[1] Dr. Norman Miller last month repored to our gynecological society a study of 2,000 cases of cancer of the cervix with studies in 100 percent follow up. The incidence of Group I, or early curable carcinomas, was, as usual, notably low. Even more striking was the slight increase of from 4.2 percent in 1931 to 5.5 percent in 1936 and 5.7 percent in 1942, of the number of women seeking early medical advice. It would seem that we can not educate or frighten adult women into bringing their genitals or breasts to the doctor at regular intervals. Obviously puritanism will not protect women from the growth of cancer nor will false modesty help bear the pain of metastatic growths. It would be interesting to know how many women doctors of the United States go regularly to other doctors for examination of their genitals. Additional information might be illuminating if we knew how many of them reported each year for treatment for late malignant lesions of these organs.

If we closely examine the records of most of those who come to us with late genital lesions of all descriptions, we will find that long periods of time have usually elapsed since the onset of symptoms until the first medical examination occurred. Many other histories will reveal that although they had recently consulted their physician, the diagnosis was muffed because a complete examination had not been conducted. We may profitably examine these women further in an attempt to find out why these delays or omissions occurred, and more particularly to explain why they occur more frequently in examinations of the genitals than in other regions of the body. By far the most common excuse given by the patient for this catastrophic neglect is their own sense of modesty which has been instilled in them since infancy, by parents and doctors alike.

The next most frequent excuse is that they believe the abnormal symptoms were within normal limits for that particular period of development, such as puberty or the menopause. Many of the sins of omission on the doctor's side are apparently based on the same faulty knowledge of the boundaries between normal and pathological states. The other common indictment of the doctor would be highly complementary to the medical profession if it did not carry with it such tragic consequences. Repeatedly patients have insisted that they felt that the reason why their physician had not examined their genitals was due to his own male sense of modesty or because of close social contact with the family. Teaching in the medical school does not eradicate this form of preschool training in the physician to any greater degree than it rids him of many previously acquired concepts of conduct or religion.

At a very early stage in the child's development we begin to throw around them the bar-

riers of protection by parental, medical, and religious precepts. These barriers are largely based on keeping the child in ignorance of the fundamental physiology, psychology, and potentialities of their sex organs. We confuse them by speaking in metaphors or actual untruths which the child resents and is unable to understand.

Thom[2] says, "The mental health of children as a group is largely dependent upon practices and precepts of the home, the intelligence rather than the intellectuality of the teachers, and the wisdom, breadth of vision, and training of their medical advisors."

Mohr[3] believes that "whether or not a special problem of sexual education exists at adolescence is dependent upon the nature of the child's previous education and social experience."

Largely based on a study in retrospect of a gynecological practice of adults rather than adolescents, it seems to me that many of the most important and serious gynecological lesions could be avoided entirely or found in their incipiency by a concerted effort by the mother and the doctor. I do not believe that many of us have had as large an experience in the actual diagnosis and treatment of the gynecological diseases of the adolescent girl as would be deemed essential to an authoritative expression of opinion about them. In my experience adolescent girls are for the most part only brought for medical advice in case of serious disease or those with a venereal implication. The critical period of growth of the genitals and assumption of reproductive function are largely unsupervised until well after marital obligations have proclaimed their failure.

Many of the primary amenorrheas, oligomenorrheas, adolescent menorrhagias, essential dysmenorrheas, congenital erosions or malformations, and infantilism will someday be avoided by further study and earlier treatment of the adolescent girl. The subsequent sterilities, frigidities and dyspareunias with their far reaching psychic and physical effects are major items in every gynecological practice. Proper early education of the child in the psycology and physiology of sex will prevent many of the illegitimate or unwanted pregnancies with their consequent criminal abortions and accompanying pelvic infections. Further advances in endocrine and nutritional therapy will aid greatly in the care of those patients who have been educated to come regularly for attention. Early recognition and cure of benign and malignant tumors of the genitals will become routine instead of the exception.

If the time comes when intelligent mothers will send their sons and daughters to medical school with the sensible fundamentals of sex instruction grounded in them, medical schools will be in a position to adequately complete their education in this respect. Proper preliminary training in these matters can only be done by the mother and the doctor. This can not be replaced by grade and high school and college courses taught, as a rule, by unmarried, puritanical teachers or begun for the first time in the adult individual.

The trends in medical thinking of lay people is probably influenced to a greater extent by their intimate contact with their family physician than by any other means. To him must go the task of educating himself in the careful carrying out of the rules and techniques of frequent routine complete physical examinations. On him will depend the education of mothers for the adequate instruction of their children to expect and demand frequent complete examinations of the genitals as well as their teeth or eyes. Few doctors today would expect to get by without giving the children they attend to prophylactic vaccination or immunizations against the infectious diseases. I hope that in the near future the same enlightened public opinion will demand prophylactic routine examination of the female genitals.

Pelvic examination of the adolescent girl should be progressive. As an infant careful inspection is usually sufficient. These inspections included in each subsequent physical examination will lead the child to accept quite readily the more extensive palpatory and instrumental prepubertal examination indicated before the onset of the menstrual flow.

Subsequent examinations during the period of adolescence would obviate entirely those last minute premarital examinations which all too frequently and far too late uncover gross pathology or malformations. The present required premarital examination is a step in the right direction but is entirely inadequate. I find during

these examinations ten times the number of patients harboring serious internal pelvic disease as I do syphilis or gonorrhea. A patient will not feel very kindly toward her family physician if he allows her to enter marriage with an almost imperforate hymen, and absent or septate vagina, a bilateral dermoid or other cysts of the ovary, endometriosis, fibromyomata, or other numerous lesions of the pelvis.

Many splendid articles and monographs in recent literature describes and graphically illustrates the techniques of genital examination of the adolescent girl.[4] Further study and perfection of these methods should be assured by widespread introduction of such teaching into our medical curricula and an immediate acceptance by all of us of these principles in our daily practice.

BIBLIOGRAPHY

1. Adair, F. L., Western Journal of Surgery, Vol. 50, September '42, General Consideration of cancer of female genitalia. pp. 433-438
2. Thom, D. A., Journal of Pediatrics, Vol. 19, pp. 342, 1941
3. Mohr, G. J., Journal of Pediatrics, Vol. 19, pp. 387, 1941
4. Schauffler, Goodrich, Pediatric Gynecology, 1942

DISCUSSION

A. H. Parmelee, M.D., Oak Park, Illinois: An adequate appraisal of an individual's health status can not be made without a complete physical examination. Dr. Allen's paper is a plea for adherance to this fact in our examination of girls and boys alike. There can be no disagreement to this in principal, yet it is true as Dr. Allen has said that many girls are permitted to go to adolescence and young womanhood with anatomical defects and pathological conditions of far-reaching importance to their health and happiness just because no physician had ever made a complete physical examination. The "false modesty" and "puritanism" of which he speaks, that seems to be the chief reason for this neglect, exists in the doctor, I fear, more often than in the patient or her mother. I am convinced that there are very few obstacles to a complete examination of girls which cannot be overcome by tact and discretion on the part of the physician.

Pediatrics is the pioneer in the practice of preventive medicine. Periodic check-up examinations of well babies and children have become almost a universal practice in this country. As a result it has been possible to carry out many preventive measures on a large scale. Not only immunizations against contagious diseases, prevention of rickets, scurvy, dysentery, etc., but also discovery of the early manifestations of many metabolic and infectious diseases have resulted from these periodic health appraisals. The pediatrician can have little, if any, excuse for neglecting a complete examination of the girls who are under his care. Many of them he sees at regular intervals from their birth on; he knows them and their mother and there should be no reason for reluctance to make any necessary examination. For the past ten years puberty has been rightfully included in the field of pediatrics. The opportunity to know the problems of the adolescent girl has increased our interest and also made clearer our responsibility to know that she has not been permitted through neglect on our part to be handicapped by something which could have been prevented.

The physician can do much to break down the barriers which prevent a complete physical examination of girls by cultivating the confidence of the child and her mother through honesty and intelligence in all his dealings with them. Patients who know you and trust you will not obstruct you in doing what you believe is necessary.

I think one of the most satisfactory things that we experience as a physicians, one of the greatest compensations for the work that we do, is the chance to observe children from the time they are very tiny, through their whole period of growth, see what happens to them, have them come to you during their older childhood, through their adolescence, even through the time of their late high school years, and their early college years; to have them bring their own babies to you.

I have something like 350 babies that I call my grandchildren, where either one or both parents were under my care in infancy and now bring their own children to me. The satisfaction of having watched their development to young adults and seeing what has happened to them through their life, and how they meet their problems, is one of the greatest satisfactions that I know.

Now sex education has been a great matter of discussion. It is not an easy thing. You can not say to a child, "Come into my study. I want to tell you the facts of life." You have to approach it in an entirely different way. I think sex education is a progressive thing. We start in early childhood by answering questions that the child puts to you, answering them honestly and as accurately as we know how. We do not avoid the question. We try to direct their reading, sometimes, to things that help, in their information. We have to fit what we say to a child about sex matters, as well as we can, to the stage of development that they have reached, not only in their intellectual development, but in their experience.

Dr. Edward Allen (Chicago) (Discussing movie): I would like to show a short movie of the technique of examining adolescent girls. It was taken after the priorities of medical films, so it is short. Just two little girls in the dispensary, who had not previously been examined, and I would like to point out several things that were of interest to me; the ease with which these children accepted that examination. You will have to take my word for the pleasure in their speech and face after the examination was over, when they were told that they were healthy and normal.

This is the armamentarium that we use for pelvic examination of the adolescent child.

These youngsters are both white youngsters. It is over-exposure that gives that color.

We think it is easier to examine an adolescent girl in a knee-chest position, both for the control of their body and their movements, and also when the speculum is introduced in the knee-chest position it balloons out the vagina and one can examine and inspect all parts of the wall and see the cervix very clearly. It is the rare patient that can not be examined both instrumentally or digitally by rectovagina and always by rectal examination.

I would like to draw your attention to the gross anatomy here, inspection of the genitals for discharges, discoloration; you see the hymenal ring which essentially looks closed but in fact is widely patent; here, the clitoris and the labium.

If nothing else is done, a sounding should be made of the patency of the tract in the early days before menstruation begins. This should be carried out by some one who has conducted previous physical examinations of the child.

A moistened swab to take cultures can either be done without instrument or more simply with the instrument introduced. Cultures are not absolutely essential, because with some little practice the slide examination is quite adequate for all types of vaginitis, including the gonorrhea.

Notice the breathing of this youngster; not very rapid; she is not too excited. Her hips are quiet. In spite of the bright lighting necessary for colored pictures, and several individuals about, this youngster went through this examination without turning a hair.

You see the hymenal ring, the distensibility when the instrument is introduced. I think most men avoid pelvic examination in the adolescent for fear of rupturing the hymen. Look at this hymenal ring in a youngster of 14. It looks almost like a multiparous opening.

If the hymenal ring is too tight for adequate examination in the hands of a competent examiner before the onset of menstruation, I believe it will be too tight for normal intercourse, and something should be done about it. Adequate drainage of the vagina is as essential as of any other organ of the body.

I believe really it is the doctor who objects to pelvic examination in the adolescent girl; perhaps it is because of his daughter. I do not know; I do not have one, but repeatedly, as I have spoken about this doctors have said to me, "You mean to tell me you actually examine these girls? Why, they would ride me out of town on a rail if I did," and yet mothers repeatedly bring up the question themselves, and I think all of us who practice obstetrics and pediatrics should educate our mothers to the necessity of bringing the youngsters early for a physical examination, so when they come to the age of eighteen or nineteen they will not have the psychic shock which I see in the unmarried girl, when she is forced by disease or approaching marriage to come in for examination.

I think the number of patients who go outside of the State to be married will bear out the statement that they will go to almost any length to avoid pelvic examination.

PSYCHIATRIC PROBLEMS IN ADOLESCENCE

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What was said in the last paper* as to the relative neglect of gynecological problems in adolescence also applies to psychiatric problems in this period. However, in recent times an interest has been developing. The large percentage of rejections for psychiatric reasons from the draft has stimulated this interest, particularly since the drafting of the 18-year olds. I might also say for psychiatry what was said as to the attention given to the health problems of early childhood, whereas the adolescents have fallen between the pediatrician and the general physician, with a relative neglect of their particular problems.

Let us briefly remind ourselves of the importance of the psychiatric problems of adolescence. In the first place, the emotional reactions and habits are still fluid and have not yet crystallized. Again, the adolescent has not acquired what we may call the more or less irreversible commitments of life, as marriage, vocation and the like, which so often complicate treatment in the adult neurotic. Thus, since the patterns are still flexible, the prospects are better for alteration and readjustment of unhealthy habits and attitudes.

In the short time at my disposal, I will only be able to touch on the chief and more general problems. But, before doing so, I shall review the various kinds of psychiatric disorder in relation to their occurrence during adolescence.

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*The Importance to the Adolescent Girl of Gynecological Examination on page 251 in this issue.

First, as to the most severe disorders, the so-called psychoses, schizophrenia is most common and relatively few apparent cases of other types are seen, at least in the early stages of the period. However, as one listens to the life histories of adult patients, it seems that more often than we have believed, trends of a psychotic like nature are present during adolescence but are overlooked or misunderstood. Time and again one hears of such trends as having passed unrecognized by parents and physicians alike. Or, when unusual forms of conduct had been manifest, they were glossed over or regarded as passing temperamental changes, likely to be outgrown, or even as signs of naughtiness, willfulness and the like.

Regarding the mental deficiencies, I need not remind you that adolescence brings new problems in them, because of the new and increasing social demands, the development of sexual conflicts and so on, but no doubt you are all familiar with these adolescent complications in the mental defectives.

As to the neuroses, they are not often diagnosed as such in the early stages of adolescence, nor do we see some of the types occuring in the adult. However, symptoms of the neuroses as obsessions, phobias and the like are very common in adolescence, much more common than many of us seem to recognize. These symptoms are often concealed by the adolescent, or appear in forms that are misunderstood and may receive rebuke rather than consideration as signs of illness. Other forms of neuroses, those with "physical" symptoms relating to heart, alimentary tract and other systems are more likely to secure medical attention than the neuroses with "mental" symptoms just described. However, they are often treated without recognition of the fact that they are due to emotional conflict.

Then there are the so-called personality problems, which take the form of disturbances in family relations, in the school room, in social relations, in the sexual realm, in relation to the choice of vocation and other problems of life. It seems that most of the psychiatric disorders of adolescence occur in such general forms, and are manifest as seclusiveness, undue indulgence in phantasies, disobedience to parents and teachers, and irregular habits.

In discussing personality problems, we should mention those disorders that are not generally regarded as medical problems, namely, the delinquencies. There is a current controversy as to whether or not juvenile delinquency is on the increase. Whatever the truth as to an absolute increase in delinquency, it seems clear there has been an increase in those forms that go under the heading of offenses against the person, as rape, aggravated assault and the like as compared with offences against property. This development is a serious one, since we may well say that the former varieties of delinquency are more "malignant" than offenses against property.

In concluding this review of the forms of psychiatric disorder, we should re-emphasize that in adolescence symptoms often take the form of general changes in conduct and so are not recognized as indicating disorders that require treatment.

Let us now turn to the psychology of adolescence in relation to personality development and the occurrence of psychiatric disorders. The most fruitful concept in psychopathology is that of conflict. We may well say that the course of human life is a continued process of conflict; conflict between self and society, between the instincts and the ideals, and between expectations and realizations. The aim of education and training is to develop a compromise, a compromise that spells normality, or a balance whereby the individual can function physically, mentally and socially to the best advantage. Conflict continues, of course, and the balance achieved is at best an unstable one.

Metchnikoff, who amongst other achievements may be regarded as one of the sponsors of the theory of intestinal stasis and toxicity, in a remarkable book, "The Nature of Man," spoke about the disharmonies of man. Amongst others, he discussed the disparity between physical sexual development and the possibility of socially acceptable expression of the sexual impulses. In our generation, we have seen a remarkable disharmony in the process of social development. Thus, because of the very laudable advances in pediatrics, maternal hygiene and other health efforts our adolescents show a remarkable development in physique with physical maturity at an earlier age than in previous generations. This is laudable and a tribute to the progress of medical science. On the other hand, and also in the

name of progress, there has been an extension of the period of school attendance and a raising of the age of going to work. These may be commendable, but in many cases there has been a resultant delay in the development of social maturity. Whereas in a previous generation the adolescent went to work and assumed some degree of self support at 14 or 15, nowadays he is not called on to assume social independence or self effort till a later age. There is a gap, then, in this generation, between the development of physical maturity with the accompanying "adult" desires and capacities, and the development of social maturity and the assumption of adult obligations. We have to keep this "disharmony" in mind in considering the nature and occurrence of psychiatric problems in the adolescent of our time.

We now pass to a consideration of the ways in which the developmental process may be affected. The development towards maturity may become halted or, as we say in psychiatry, the adolescent may show "fixation". Then he fails to accept or acquire disciplined reactions and socially mature habits in keeping with his age which are necessary for his further social adjustment and adaptation. On the other hand, he may not only fail to progress but lose ground or, as we say, "regress", and become re-established again in habits and reactions of an earlier age which he had outgrown. Or, there may be a delay in the compromise formation between self and society, and instincts and ideals, so that the conflicts are not solved to a reasonable extent and erupt in the form of symptoms. These may be "mental" symptoms, as phobias, obsessions and the like, or disorders in social adjustment, or appear in the form of visceral incoordinations, whose name is legion.

The question of diagnosis now calls for comment. We will exclude cases showing frank signs of psychoses or neuroses, that is, with definite symptoms of the accepted clinical syndromes, and rather discuss diagnosis in the more general forms of disorder since, as I have said, most of the psychiatric disorders in adolescence appear as such rather than in the form of the clinical syndromes as ordinarily described. We have to ask ourselves if the emotional difficulties are of a transient and passing nature, or indicate a deeper conflict that calls for investigation. Thus, we may enquire if they are due to external causes, as a difficult family situation or the like, which is presenting an undue and abnormal strain on the individual. Or, is the disorder due to a basic difficulty in personality development and therefore of more pathogenic significance and maybe of importance in regard to mental health in the future as well as at present. In trying to settle these questions, I would emphasize that symptoms in themselves may be misleading, since a greater proportion of adolescents than we have realized do suffer from obsessions and phobias and yet go on to healthy adult development. Thus, in attempting to make an evaluation, we must consider not only the symptoms but the general features of the personality, the degree of development of emotional and social maturity, the nature and variety of the social activities and achievements, and such like. Also, we should try to estimate something that I will call flexibility. It is remarkable how many of our "good" boys and girls, who offer no problem either to parents or teachers, and for whom a brilliant future is promised, break down in college or vocation. They have often been "good" because they were living in a special and protected environment and never had to face the stress and strain of adjusting to new circumstances — and maybe difficult and frustrating ones — by their own efforts. Thus, when they come to college or go to work they are outside the limits of a protected environment for the first time. Then they may fail insofar as their experiences have never been sufficiently trying to develop in them capacities for meeting new and difficult circumstances. Perhaps the most important point to establish in diagnosis is the capacity of the adolescent to face and overcome the rebuffs and frustrations of life.

Regarding treatment, we may well distinguish between the young child, the adolescent and the adult. It is common to say in regard to the problem child that the parents may require treatment as much as he does. There is much truth in this recognition that the difficulties of the child are often due to external circumstances which can be altered. In the adult, on the other hand, the conflicts are essentially internal, that is, they are dependent on his reactions to circumstances that are common if not universal. It may be possible to change some of these externals, but for the most part it is necessary that

the individual change them himself or change his reaction to them. The adolescent falls between the two. Some of the patterns of life are being crystallized within, and to that extent a change within is necessary. But, many of his problems are dependent on external circumstances that can be altered. Certainly, in the early adolescent, we have to keep that in mind, and consider the possibility of seeking changes in parental attitudes and other factors in the social situation as well as attempting to change the reactions of the patient.

There are some common and widespread errors in our handling of adolescents with psychiatric problems. Thus, some are still prone to scorn or rebuff adolescents who want to talk about their emotional difficulties. We are often inclined to brush them off with an accusation of naughtiness or willfulness, instead of adopting attitudes that would make it easy for them to reveal their intimate and personal difficulties. Others are inclined to rely too much on lectures and admonitions, forgetting that none of us benefit much from precept as compared with example or an understanding attitude that may give a new perspective and help us to see the need for change and how we can best achieve it.

In regard to treatment, you may ask if the psychiatric problems of adolescents are so frequent, as they must be to judge, say, from the experiences of the induction boards, how can we arrange for the treatment of so many. The physician has limited time and opportunities for the individual treatment of more than a few. Again, I need not remind you that at least 30 per cent of all patients who seek medical attention yearly are suffering from neuroses and similar functional disturbances, which is a measure of the number of adolescents who should be treated if we are to develop the principle of prevention. It would seem that we shall have to develop group measures of prevention and treatment. Above all, we need a change in the public attitudes to psychiatric disorders. As you know, psychiatric disorders have not yet acquired the status of other forms of illness as to public acknowledgement and acceptance and are still often held to the discredit of the individual. This militates against acknowledgement of their presence or of the need for treatment in the early stages.

As to general principles of individual treatment, good results are often possible in the minor psychiatric disorders with a few interviews. It is only required that these be on a friendly and objective basis that permits of a ventilation of the individual's difficulties. The physician has a strategic advantage over others in this regard, if he can conduct the interviews on the same dispassionate and objective basis as he conducts a general physical examination since so many of these young people are deterred from seeking advice by the fear of criticism, of being laughed at and of exposure. Many require only a sympathetic understanding to get a new perspective, to realize that their problems are not unique and that they can be solved, as similar problems have been solved by their parents and others in the past. It goes without saying that we should attempt to establish and enlarge their social contacts and experiences through group activities of all kinds. But we must be careful not to rely too much on admonition and exhortation. Our approach must be in part on an emotional basis, an appeal to the prospect of personal gain, by showing that in the long run they cannot benefit from holding to childish and phantasy ways of living, but will benefit from adopting the ordinary, apparently humdrum but nevertheless realistic and socially acceptable ways of life.

In some cases the factor of constitutional hypersensitivity may loom large in the causal process. This need not lead us to an attitude of therapeutic nihilism, but only means that such an individual requires more time than his fellows to adopt new ways and to relinquish his present habits and attitudes. We cannot make a special environment for such individuals, but we must try to ensure that they have time to digest the situation and that we introduce them to realistic ways of life step by step. Thereby we may help them to get a foothold on the way to emotional maturity, so that in time they can face the ordinary social demands which would be overwhelming if presented all at once and without preparation.

In conclusion, I would say that one of the most important needs for the adequate development of psychiatric efforts amongst adolescents, as amongst adults, is a change in the attitudes toward psychiatric problems. This is necessary not only amongst the general public but also

within the medical profession, so that those with mental difficulties may find it easier to come and reveal them, with the assurance they will be received and treated on the same basis as patients with general medical problems.

DISCUSSION

Dr. Arthur H. Parmalee (Oak Park): I am very much interested in what Dr. Slight has been saying. I had already remarked about the satisfaction of seeing children that you had watched through their early childhood, grow up, and I think what I said about their desire to talk over their adolescent problems with somebody outside of the family, is extremely important and extremely gratifying to the physician.

Any number of boys and girls in high school and even after they have gone to college, who have problems that they want to discuss with somebody, come to me, just drop in to talk over certain things that they want to be reassured about.

By establishing that sort of a port with your patients, feeling that you understand them, and willing to talk to them on the same basis that they want to talk, I mean not talk down to them as children but talk to them as intelligent human beings, the only difference between an adolescent boy or girl and yourself, as far as their standing is concerned, mentally, is the matter of experience. They have exactly the same intellectual level that you have, and deserve to be given credit for it. All they lack is the experience that you have, which modifies your judgment.

THE PROGRAM OF MEDICAL AND HOSPITAL CARE FOR THE WIVES AND FAMILIES OF ENLISTED MEN

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Last fall the Federal Children's Bureau realized that a problem was arising with regard to the care of the families of the young men serving with the armed forces. Many were recently married. The marriage rate was increasing as was the birth rate. The pay of these men, even with the allotment, was not adequate to care for these families.

There were some unexpended funds which could be diverted for giving this care. This amounted to several hundred thousand dollars. Some 28 States submitted plans for this care and an allocation of funds was made to these States. Illinois submitted a plan and was given $10,000 for this purpose. Late in November the plan was first put in operation after submission to the Council of the Illinois State Medical Society which adopted the following resolution:

"Where as it has come to the attention of the Council that certain agencies claim to have discovered a number of wives of members of our armed forces unable to pay for obstetrical care, on the basis of this alleged discovery certain moneys have been allocated to pay for this care, and bills are pending in Congress to appropriate larger sums for the payment of such care, which presumably would otherwise be rendered on a charity basis;

These moneys will probably be administered by the Division of Maternal and Child Hygiene of the Department of Public Health. The fees, we understand, have been determined on a country wide basis, $35.00 for delivery with pre- and post-natal care, with additional provision for routine hospitalization and consultation in abnormal cases.

Therefore even though this puts us in the position of accepting Federal funds, to which we are normally opposed, the Council feels justified in recommending to the County Medical Societies that they cooperate with the Department of Public Health and the Red Cross on this basis for the period of the present emergency."

According to the rules promulgated by the Children's Bureau, there were no economic restrictions. The wife of any man in the armed forces was entitled to medical and hospital maternal care. There were some restrictions relative to rank as men holding commissions as officers were excluded as were those noncommissioned officers who received pay equivalent to the salaries of the lowest rank of commissioned officer. Briefly, any wife receiving an allotment from the government was eligible under this rule.

Not all states had identical plans. The legal residence of the patient made no difference. The payment could be made for care within the state boundaries. So far as Illinois was concerned, the patient could choose her own physician who could accept or reject her upon the conditions laid down. He could decide whether or not she could stay at home or go to a hospital and also to what institution she should go. The rule had to be that no payment could be authorized except in advance of the rendering of service or in emergency at the time of the first visit. The main reasons for this was to encourage antepartum care and early visit to the doctor, but also the administrative necessity of budget control.

Read before Illinois State Medical Society 103rd Annual Meeting, Chicago, May, 1943 by Elizabeth B. Ball, M.D., Pediatrician, Division of Maternal and Child Hygiene, State Department of Public Health.

For the latter reason it was necessary to authorize a basic or a maximum sum to licensed hospitals and physicians. It is easy to understand that a blanket authorization for payment would lead to no end of budgetary complications, the principal one of which would be that the budget would be overdrawn and no funds would be available to meet the obligation. The medical and hospital care was also limited to maternity patients and to infants under one year of age who were afflicted with acute illness.

The rules and regulations, as well as the application blanks and other essential forms, have been circulated. An attempt has been made to keep these as simple as possible, both for our own sake and for that of the doctors and hospitals. The rules and regulations are as follows:

FUNDS FOR THE CARE OF WIVES AND INFANTS OF ENLISTED MEN ADMINISTERED BY THE DIVISION OF MATERNAL AND CHILD HYGIENE ILLINOIS STATE DEPARTMENT OF PUBLIC HEALTH, SPRINGFIELD, ILLINOIS

FUNDS

Funds have been made available through the Federal Children's Bureau for the medical and hospital care of wives and infants of enlisted men eligible for such care. The Council of the Illinois State Medical Society has recommended that the members of the County and District Medical Societies cooperate in giving care. According to Federal law, those eligible are in the 4th, 5th, 6th, and 7th grades. It excludes the families of commissioned officers; of master, major, first, technical, staff, and platoon sergeants; and of chief, first, and second-class petty officers.

PROCEDURE

1. The wife should apply to the physician of her choice for care during pregnancy and labor or for care or her sick infant.

2. The physician must recommend and assume responsibility for the care.

3. Copies of the form to be used by the wife in making her application and by the physician in making his recommendation may be secured from the local health and welfare agencies or from the Division of Maternal and Child Hygiene.

4. The Chief of the Division of Maternal and Child Hygiene, upon receipt of the application, will authorize the care that the physician recommends.

5. All authorization must be secured in advance. In acute illness and emergency, authorization should be requested immediately at the time of the first visit. Authorization for services rendered prior to application can be made only in serious emergency. If the physician recommends subsequent care it may be authorized after review of the case.

PAYMENT

The Division will authorize, where recommended, payment for both medical and hospital care. In exceptional cases payment may be authorized for special care or service. The collection of additional fees from the patient or her family for any type of care authorized by the Division is barred.

Payment can be made only for authorized care. The basis of payment is as follows:

MATERNITY CARE — $35.00 is the fee for complete antepartum, delivery and postpartum care. $10.00 of this is allowed for adequate antepartum care which should include at least five visits. If delivery and postpartum care only are given the stipulated fee is $25.00. This includes the usual essential care of the newborn.

PEDIATRIC CARE — $20.00 is the maximal fee allowed for the care of an infant. The maximum allowed is $10.00 for the first week's care, $5.00 for the second week, and $5.00 for the third week. This includes at least three visits for the first week and two for each succeeding week. This care is limited to infants under one year of age.

HOSPITAL CARE — When the physician recommends that hospital care is necessary it may be authorized on the basis of the per diem cost not to exceed $50.00 for 10 days' care of the maternity patient and not to exceed a similar amount for the care of a sick infant.

CONSULTATION FEE — When consultation is required, the payment of a fee to a qualified consultant may be authorized.

It is important to realize that this plan is a war measure, was developed rapidly and undoubtedly has its defects which will eventually be corrected. It was essential to preserve certain basic principles. One is that the patient can choose her own physician. Another is that the doctor can accept or reject the patient and the terms which are set forth in the plan. Once accepted, he has the responsibility for her care the same as he would for any other patient.

The financial aspects of this program have been difficult and uncertain. As already stated, the Children's Bureau allotted $10,000 of unmatched funds to Illinois. This was a very limited amount in view of the number of families potentially involved. The program was developed cautiously but gained momentum. Another $10,000 was secured from some unexpended funds in the divisional budget. This amount was soon obligated.

Our budgeted funds were reviewed and some $25,000 were diverted from their original allocation by a budget amendment. Thus we had $45,000 available which soon became committed. The problem was by no means limited

to Illinois and other States felt the same pressure. The situation was brought to the attention of Congress and a "First Deficiency Appropriation Act" was passed and approved on March 18, 1943 and made $1,200,000, available "for grants to States, including Alaska, Hawaii, Puerto Rico and the District of Columbia, to provide, in addition to similar services otherwise available medical, nursing, and hospital maternity and infant care for wives and infants of enlisted men in the armed forces of the United States of the fourth, fifth, sixth, or seventh grades, under allotments by the Secretary of Labor and plans developed and administered by State health agencies and approved by the Chief of the Children's Bureau."

Of this sum $25,000 was allocated to Illinois. These funds can be authorized for payment of hospital and medical care on a fixed basis of payment, that is, a maximum is set. The service is minimal and not maximal as shown by the regulations. The hospital is supposed to be paid on a minimal cost basis but inasmuch as the cost has not yet been determined by audit, an approximate average per diem cost was set and payment authorized accordingly.

No extra charges were to be made or collected by the hospital or doctor. Extra services, such as, transfusion and consultation may be authorized and paid. In emergencies, application must be made at the time of the first visit. This may be done by telephone, telegram or special delivery mail. The papers must be forwarded immediately.

Perhaps some figures will be of interest. For the first week ending November 28, 1942, care of only one case was authorized. For the week ending May 1, 1943, 74 applications were approved. With some weekly variation, there has been a steady increase in the number of applications. Many have been rejected because the rules and regulations state that authorization cannot be retroactive. Up to May 1st, the funds obligated amount to $48,505.00.

The total number of cases for which care has been authorized is 616 of which 563 are for hospitalization and 53 for home care. The number of applications for infant care has been only 8. The cases are widely distributed throughout the state, 72 counties in all. The lowest number in any county was one and the greatest was 57.

Many hospitals have participated, 53 in all. Twenty hospitals have given care to 1 case, 2 hospitals have taken care of as many as 6 cases, and 1 hospital as many as 14 cases. In all, 109 doctors have participated; 78 doctors have taken care of one case, 20 have cared for two, and 11 have cared for three or more. The greatest number cared for by any one physician is 8. The bills of these hospitals and physicians have been approved for payment and some have already been paid. The total amount paid out to date is $11,176.55; $7,127.55 to hospitals and $4,049. 00 to physicians.

After July 1st, there will be no definite sum allotted to a State. The first day of each month, the following information must be wired to the Children's Bureau:

a. Number of cases authorized during previous month.
b. The estimated total amount of obligations incurred for such cases.
c. The estimated number of applications which will be authorized during the ensuing month.

There are a few points which may be mentioned specifically:

"Any woman in the State, irrespective of legal residence, whose husband *at time of application* is an enlisted man (this includes men deceased or missing in action) in the armed forces of the United States of the fourth, fifth, sixth, or seventh grades (Army, Navy, Marine Corps, or Coast Guard) and who makes application for such care, will be eligible for the medical and hospital maternity services provided under the plan, without cost to the family when similar services are not otherwise available from the medical or hospital facilities of the Army or Navy or from facilities provided by or through official State or local health agencies.

"Infants included under this program should be referred to child health conferences for medical supervision and immunizations *whereever arrangements can be made.*

"The cost of intern, resident, and other medical staff employed by a hospital are included in the calculation of "hospital ward cost per patient day" and no additional expenditures may be authorized under these plans for payments of services of these physicians in such hospitals.

"When prenatal care has been provided patients under this program in clinics and care during labor and the puerperium is provided by practicing physicians not employed by the hospital they may be paid for the medical services they render during labor and the puerperium. Similarly, physicians, not employed by the hospital who treat infants admitted to the hospital through out-patient clinics under this program may be paid for treatment for such children in accordance with this scale of payment:

A. First visit during first year of infant's life —

It at home — maximum, $4.

If in office or hospital — maximum, $2.

(A physician is paid at this rate only for the first visit during an infant's first year of life.)

B. All additional visits in first year of infant's life —

If at home — maximum, $2.

If in office or hospital — maximum, $1.

C. With maximum payment for first week of illness — $10.

D. With maximum payment for any subsequent week of illness — $5.

(If the total value of visits in a given week [calculated in accordance with A and B] is less than the appropriate weekly rate under C or D, the visit should be paid for at the visit rates rather than the weekly rates.)"

Fees for specialized services should be determined by the State Health Agency in conference with a Technical Advisory Committee. The extent of this plan cannot be calculated at this time. One cannot fortell its influence upon the future practice of medicine and surgery and particularly upon that of obstetrics and pediatrics. The plan has the sanction and support of Congress as a necessity during war time. It may well set a pattern for post war practice, at least in maternity and infancy. The medical profession should give it careful consideration and assist in developing a pattern which will be helpful to the patient and doctor alike.

DISCUSSION

Dr. Luella E. Nadelhoffer (Chicago): I believe that I express the reaction of the Society when I say we are grateful to Dr. Adair and to Dr .Ball for presenting to us this timely war time problem.

Dr. Estelle Warner, this morning at the Medical Women's breakfast, said that thirty of the states are participating in this program, and that several are about to begin it.

In Chicago we have had, as Dr. Ball stated, as in other communities, an increase in marriage and birth rates. For example, last year in Chicago we had 68,549 live births as compared with 57,329 in 1941; that is, a birth rate of 17.5 in 1942 as compared with 16.9 in 1941, and the average birth rate for the years from 1930 to 1940 was 15.

At the same time, we have had a decrease in our maternal and infant mortality rates, which has been very satisfactory. The maternal mortality rate for 1942 in Chicago was two per thousand live births, which is the lowest that it has ever been. The infant mortality rate was 28.4 per 1000. We believe this shows that in spite of the increase in births and overtaxing of our hospital facilties, and with the decrease in physicians, we have maintained our standards. Dr. Cross mentioned this morning that one purpose of this program which Dr. Ball has presented to us is that we must maintain our standards of maternity and infant care.

In the fall of 1942, at a conference between representatives of the Red Cross and the Health Department, the question of the care of wives of men in the armed forces was taken up. There were many wives of men in the armed forces who were not being adequately taken care of, who were coming in to Chicago as transients, or who had been living here and because of the husband's salary were unable to get adequate maternity care.

At that time we decided that these patients, if they did not have other means of getting prenatal or maternity care, should be sent to the Board of Health prenatal stations, operated at strategic points throughout the city of Chicago. Here the patients received prenatal care, and arrangements were made for delivery, either by private physicians or by institutions.

Some hospitals, such as the Chicago Lying-In Hospital, accepted emergency cases, without fee, where the patient could not be taken care of otherwise, or where plans had not been made for her care. Other hospitals have done the same thing.

There are problems, of course, connected with this plan. It is very new, and many things have to be worked out; for example, I believe that many of the women concerned do not know of this plan for their care, because we have had many requests at the Health Department, both by letter and telephone.

Many of the hospitals feel that the $50 fee is not sufficient to cover the costs. And other questions have come up in regard to hospitalization; for example, one patient had to be hospitalized in about the middle of her pregnancy. She had pneumonia, needed oxygen, expensive treatment, and long hospitalization, and the question came up whether payment would be authorized for that type of care under this plan. Perhaps Dr. Ball will answer that for us.

There are complaints that the fee for physicians is very low, but this fee was set, I believe, by a maternal advisory committee and the groups in Washington, as the fee to be used, at least to start.

I think it is too early to know just how much need there is going to be in Chicago. We have had about 50 or 60 authorizations for payment under this plan, and the authorizations seem to be coming in faster as the doctors and wives of the armed forces learn about the plan. I think there is a great need for it, and I believe that hospitals and doctors should cooperate to the best of their ability, to take this as a wartime measure, and as their duty to the wives of the men who are in service.

Dr. Ball (closing the discussion on Dr. Adair's paper): I wish to thank Dr. Nadelhoffer for her discussion.

In answering the question which she brought up: When we stop to consider the number of people to be served and the amount of money that has been appropriated, we realize it has to be spent as wisely as possible, hence we cannot spend too much on one case.

There has been no provision made for too much care for any one individual. Something very essential, something very necessary might be taken care of, but as a rule it must apply as strictly as possible to the maternal infant care.

GOLD THERAPY OF ARTHRITIS

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AND
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We have always held that any new therapy, particularly if more dangerous than currently used measures, must be effective in patients not benefited by treatment now in present use or must be cheaper, safer, easier to administer or more rapidly beneficial.

Gold belongs to the therapeutic era of "alteratives". Alteratives are chemicals predominantly of iodine, arsenic or sulphur composition used empirically to "alter", preferably favorably, the course of disease.

The multitude of measures listed as cures for arthritis results from applying some procedure to previously untreated patients with a prompt recording of the patient's subsequent course. Such treatment often represents the first attention given by the patient to his illness. Often the patient mends his way of life of his own accord on first consulting the doctor. The patient obtains suggestions for hygienic, dietetic and physical or even sympomatic medical treatment from other patients. These measures are not taken into the calculation of results but play no small part in any improvement. Even the visit to the doctor's office or clinic is a sobering event often leading to self-induced rest or at least to a circumscription of activities.

Our first experience with gold as a therapeutic agent was European in 1923. We injected it in another disease for which there is no specific therapy, pulmonary tuberculosis. A patient with tuberculosis like a patient with arthritis tends to improve spontaneously and as a result of rest. Gold has been largely abandoned as a therapeutic agent for consumption and for the same reasons which condemn its use in arthritis: failure to improve patients unimprovable by bed rest and because of its poisonous effect. It was then used in another disease characterized by spontaneous remissions, multiple sclerosis. Following a number of enthusiastic early reports it has also been dropped as treatment for this disease. In the intervening years Forestier has been injecting gold compounds into patients with chronic arthritis.

We planned to use gold only in patients thoroughly studied and not benefited by other measures, in whom the disease was either progressing in spite of other measures or in whom the disease and the patient were in equilibrium. The patients chosen had the atrophic or rheumatoid type of disease with rapic sedimentation rates. Kidney or liver disease were causes of rejection. These patients had been seen long enough to evaluate the possibility of spontaneous remissions of the joint disease. The group comprised five private patients, nine patients in the arthritis clinic of the out-patient department of the Presbyterian Hospital, Chicago, and two patients in Cook County Hospital.

On their frequent visits they were examined and questioned about skin or mouth irritation, nausea, headache or weakness. The sedimentation time was estimated before and during the treatment. Frequent blood counts were made and the degree of bilirubinimia was estimated. Routine urinalysis was performed at each visit. The urobilinogen in the urine was quantitatively determined. Testing for abnormally large amounts of urobilinogen in the urine (hyperurobilinogenuria) provides an easy, quick and inex-

pensive means of detecting liver damage early. It is especially valuable and should be routinely employed when arsenic, gold or cinchophen are being administered.

In private patients we used a solution of gold sodium thiosulphate. In the clinic, sodium succinamide-aurate was injected. Tuberculosis patients injected with the succinamide were reputedly free from reactions. The gold sodium thiosulphate was injected at five-day intervals starting with ten milligrams and increasing each dose by ten milligrams until one gram had been given. Two to four weeks separated the courses of one gram. The succinamide was started at twenty-five milligrams. Each dose was increased by ten milligrams. Two patients attained doses of two hundred fifty milligrams.

The criteria of improvement were: relief of weakness and improvement in the local joint status as judged by decrease in pain, tenderness, stiffness and swelling. These estimations were made as objective as possible. Actual measurements were recorded from visit to visit in many cases. The slowing of sedimentation and a decrease of anemia were laboratory criteria of improvement.

From these standpoints none of the private patients was improved nor did any become worse. Four of the nine clinic patients were improved. Two of the five private patients developed marked hyperurobilinogenuria. In one of them stomatitis appeared after two courses of 1 gram each. Exfoliative dermatitis appeared after the treatment of two others after 0.9 gm. and 1.0 gm. respectively. The exfoliation has completely disappeared after several months treatment of each of these two patients. Four of the clinic patients showed toxic reactions sufficiently severe to require stopping the injections. These were noted after an average of 285 mg. of gold succinamide had been injected. All patients seemingly recovered from the toxic reactions, some after a stormy course. One clinic patient whose arthritis had lessened had a relapse within nine months and is now bedfast. Three of the four clinic patients developing toxic reactions gave positive gold patch tests. One patient with a positive gold patch test tolerated the gold injections well. One patient had marked lupus vulgaris complicated by rheumatoid arthritis. Her lupus cleared up completely on 0.7 gm. of gold sodium thiosulphate. Her arthritic status is unchanged.

The results of this smaller number of cases did not encourage us to increase the series.

CONCLUSIONS

Gold was not found recommendable as a safe, inexpensive therapy effective after the failure of currently available treatment.

THE IMPORTANCE OF PROPER OPERATIVE INCISIONS

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The importance of the proper incision in surgical operations has always been stressed by authors of operative surgery and the teachers of operative technique, but the average surgeon, as he becomes more and more engrossed in underlying or causative pathology, has a tendency to forget or minimize the all important initial incision which affords the access to the surgical procedure which must lead to the proper exposure of the field of operation and the consequent attempt to relieve the condition for which the operation is indicated. Bickham[1] in his classical work on Operative Surgery states, "Preceding the actual cut, the surgeon should have very definitely determined in his own mind — What he intends to do — How he intends to do it — What he is likely to encounter — and — How he is going to get into the body. The primary incision is, both literally and figuratively, the key, or the opening, to the situation — and, if rightly made, will greatly aid the surgeons subsequent steps — just as it will greatly embarrass and handicap him if wrongly made."

It is not my purpose in this paper to justify or champion any given type of incision for any given surgical procedure but to emphasize the proper approach that the minimum of trauma and efficacy will facilitate the operative procedure which is to follow, lessen the postoperative complications and restore the patient to health with the minimum loss of time and a

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gratifying functional and cosmetic result. This is the water-mark of the true surgeon. What I have to say concerning four or five specific operations which the average surgeon is called upon to perform, must of necessity apply to all types of incisions if this paper is to serve any useful purpose. The determining features such as *length* of incision sufficient to plainly expose the involved region, permit of the requisite manipulations of the structures directly involved, and safely conserve the adjacent structures from the harm that comes of trying to manipulate in too restricted confines, are primary considerations over the secondary factors such as time, dexterity, and the resultant scar.

It must be remembered in making the skin incision for the ideal thyroidectomy, that the resultant scar will be much lower than an operator without experience would anticipate. Of course it goes without saying that the longer the goitre the lower this displacement for the same reason, as Bartlett[2] puts it that "a pendulum rises farther the more it swings out." Too often in our travels have we seen a semilunar scar hanging low over the sternum of a rather bony female when the inevitable necklace rides four or five inches higher. The line marking the incision should always be made about one cm. higher than is planned for the final scar which is to be covered by a necklace.

The length of the collar incision is a matter of importance largely because one is inclined to go further than is necessary with it. Bartlett[2] states that, "one of adequate length should at first look relatively too short until the operator learns by experience that the skin of the neck is very elastic."

A short incision can always be lengthened if it is necessary to divide the lateral ribbon muscles, but a too lengthy incision will always be a too lengthy scar.

The surgical approach to a radical mastectomy should be one that would give us the maximum exposure to the axillary and subclavicular glands and allow for comfortable closure. The old classical semilunar incision of Halsted[3] seems to facilitate this procedure admirably, but by the same token a transverse incision, of which I have seen two on the occasion of a recurrence of the malignancy, cannot possibly allow for an adequate exposure of the glands into which this area naturally drains.

If, as so often happens, a simple excision of a mammary tumor is followed after a frozen section by a radical removal of the breast, the primary incision should in no way interfere with the prerequisite for the radical incision which I have described.

For the removal or drainage of the gallbladder it is of primary importance to determine the lower anterior margin of the liver. By simple percussion or auscultatory percussion, this landmark should be first determined. The three incisions most commonly used are the oblique infracostal, the right rectus and the transverse. This is the opinion of Cuttler and Zollinger[4] and of course is open to debate but the point to be remembered is adequate exposure of the gallbladder and cystic and common duct, so that with gentle traction on the edge of the liver proper, bringing the organ downward from under cover of the ribs, the under surface of the liver can be brought anterior bringing the field of operation quite close to the surface. This was the object of the original Mayo-Robinson incision which combines the vertical right rectus with the oblique infracostal incision. These incisions avoid the multiple nerve destruction seen so often in the long oblique incision we so often run into in subsequent examinations. There is a temptation, I admit, to lengthen the incision, say just another inch or two, and with considerable traction deliver an appendix into the opening, but how much better in the great majority of cases is it to simply feel down with the left hand, locate the appendix and then make another incision, only a small one is necessary, and do the appendectomy thru the secondary opening.

The incision scars I have been seeing for years, thru which surgeons were supposed to have just lifted the appendix, have been varied and ugly. This category of incisions really turned my mind to this subject several years ago. When the subsequent adhesions following a long and misplaced incision for a simple appendix is a factor in the dystocia of pregnancy, it is time that someone raised a voice in protest.

I have a feeling that a failure to make a correct diagnosis is an excuse for some of the so-called utility openings. Here, again, a little care in placing the incision will save a young patient no end of discomfort.

Considering that we are operating a diagnosed simple appendix and our examination clearly demonstrates a definite point of tenderness over McBurney's point, why should we not make our incision over that point? The late Wm. E. Schroeder has clearly and dramatically pointed out on many occasions that the incision for an acute appendix should be made over the point of maximum tenderness, yet we blithely ignore this point of maximum tenderness and make our incision where we think the appendix should be only to enlarge it to where it really is and thereby extend and prolong the convalescence with an increased likelihood for post-operative herniae and obstructive forming adhesions.

The classical incision for a laparotomy is a supra-pubic midline incision and can be extended up and around the naval if more exposure is subsequently needed, but here again I myself have been guilty of making quite a common error, that of opening the abdomen in a transverse incision, not after Pfannenstiel, but to produce a minimum scar formation, and then continue toward the peritoneum by splitting the rectus sheath, only upon opening the abdomen to find yourself confronted with pathology which is hard enough to relieve thru a classical incision, and now to have deliberately handicapped oneself by a faulty opening, you have added more trouble to an operative procedure than is warranted.

In speaking of abdominal incisions, Thorek[5] says it should be judged by the following criteria.

1. It should give a *free exposure* of the diseased area.

2. It should offer no impediment to prompt healing with a minimum of scar formation and

3. It should after healing permit *good functioning* of the abdominal muscles.

These points we should always bear in mind in making the primary incision and our efforts will be greatly rewarded.

321 W. State Street

REFERENCES

1. Bickham. Operative Surgery (book) Vol. 1, p. 219.
2. Bartlett. Surgical Treatment of Goitre, p. 172.
3. Halsted. Annals of Surgery. Vol. XX. No. 5.
4. Cutler & Zollinger. Atlas of Surgical Operations. p. 74.
5. Thorek. Surgical Errors and Safeguards. p. 193.

DISCUSSION

Dr. Joseph S. Lundholm: I believe this subject could be used as a striking example of the old adage: "A difference of opinion makes a horse race." I don't want to go into details on it. The question of the quotation that Dr. Owen gave, "That a man should know what he intends to do and how he intends to do it," is, of course, based on the supposition that he always makes a diagnosis of a surgical belly.

Those of us that are in this work realize how often we are confronted with a surgical belly, an acute belly that needs work done immediately and we cannot make a positive diagnosis. In those cases I believe the selection of the proper site is over the point of maximum tenderness, using the adage of Schroeder's that Dr. Owen spoke of, "to put the location over the point of greatest tenderness". I believe all of us have had experience in finding that this rule proves to be one of the best.

In selecting the area for incision I think we must simply consider the prerequisites that have been grouped so ably by Spivack. First, a good operative field is essential, and it speaks for itself. Second, we should have the consideration of the physiological and anatomical point.

In this connection, considering the skin of the abdomen first, we know that there are numerous fissures extending transversely in a slightly elliptical position that are called the fissures of Langer. If we desire to make our incision conform to these fissures, we know that from the standpoint of the cosmetic effect, which is the third prerequisite, we then will have a minimum of scar. Underlying the skin we have the superficial fascia which in itself is divided into two layers: the superficial or what is known as Camper's fascia, and the deeper layer that is known as Scarpa's fascia, which lower in the abdomen becomes continued with Poupart's fascia, and also with the fascia lata in the thigh.

Knowledge of the distribution of the fascia, particularly of the lower abdomen, will enable the surgeon to make his incision in such a way as to make the proper incision.

The knowledge of the muscle is, of course, also extremely important as to where to make your incision if you wish to avoid injury to the muscle.

The nerves supplying the abdominal wall, of course, come around transversely, the blood supply comes transversely and longitudinally; so that in either event, whether we make a transverse or longitudinal incision, our blood supply will be affected approximately the same.

In making a choice between a transverse and a longitudinal incision it is a question of whether or not we want to prefer the damage to the minor nerve endings in the skin and the subcutaneous tissue or, in the transverse incision, cutting the muscle. And that, as I said when I started, is a question of choice, and that is what makes it a horse race.

CONVULSIVE SHOCK THERAPY

VERNON L. EVANS, M. D.
AURORA

The deliberate induction of convulsions by the injection of metrazol in the treatment of mental disease was introduced by Ladislau von Meduna in 1933. The use of this method of treatment spread and became popular coincident with the production of coma by the injection of large doses of insulin, which was introduced by Manfred Sakel in 1933. The induction of convulsions by the passage of an electric current through the brain was introduced by Cerletti and Bini in 1938.

Technique.—In the case of metrazol shock therapy, the drug metrazol, a soluble camphor derivative is injected intravenously in dosage such that convulsions are produced. The initial dosage required varies between 3 and 5 cc. of a 10% solution. In the case of the electric shock, the current is passed between two electrodes placed over the temporal areas. A rubber strap is used to hold the electrodes in place and some salt paste is used to insure a good contact. No cutting or shaving of the hair is necessary. A number of machines are available to deliver the desired current. The machine in use at Mercyville Sanitarium delivers an alternating current of approximately 110 volts and this is taken from the lighting circuit in the building. There is an automatic timing device which enables one to vary the duration of current from one tenth to one second, and the milliamperage may be varied between 200 and 700 milliamperes. Treatments with either metrazol or electric shock are usually given at the rate of 2 or 3 per week, for a total of 8 to 12 treatments.

The electric shock treatment has certain advantages over the metrazol treatment, and has largely replaced the latter. The reactions produced by both methods are very much alike. The patient has a rather typical grand mal epileptiform seizure. At first there is a tonic spasm of all the voluntary muscles and this is replaced by clonic convulsive movements, followed by a period of relaxation and apnoea. During this period the patient becomes very cyanotic, but this quickly disappears after breathing has been resumed. The total duration of the seizure is about one minute. In the case of metrazol, about 20 seconds is required from the time of the injection of the drug until consciousness is lost. During this time, many patients experience a terrifying sense of impending dissolution, and they frequently develop an attitude of panic before each treatment. In the case of the electric shock, consciousness is lost instantaneously, and the patient usually has a period of amnesia, which extends back for a period of a few minutes before the treatment was given, and he may not remember going into the treatment room or having the electrodes applied to his head. The electric treatments are, as a rule, not feared by the patient. Another advantage of the electric shock is that the effect is entirely on the nervous system, whereas with metrazol therapy the drug is a powerful stimulator, not only of the nervous system, but of the cardio respiratory system as well. For this reason, it is possible to give the electric treatment to some persons whose cardiovascular systems are not in good condition.

Indications.—Convulsive shock therapy originally was used for cases of schizophrenia or dementia praecox. However, its use has been extended to other mental disorders and it has been found more effective in some other conditions. Depressions of all types tend to respond very favorably. The results have been excellent in cases of manic depressive psychosis — depressed type, involutional melancholia and reactive psychoneurotic depressions. I regard convulsive shock therapy as the specific treatment for these diseases.

Another group of patients that I would like to call your attention to is the group of elderly people who are depressed. Many patients with supposed senile dementia, with depression as their outstanding symptom, respond remarkably well to convulsive shock therapy. We have had a number of people in their 70th and 80th decades who were sent to us for custodial care, for supposed senile dementia, and some of them have responded remarkably well to convulsive shock treatment. Closer study of these patients reveals that their outstanding symptom is depression, and that their memories and intellects are comparatively well preserved. They stand the treatment with very few ill effects, and it has been most gratifying to be able to send these supposedly incurable people home entirely well.

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In manic depressive psychosis — manic type our results have been rather disappointing. The patients respond beautifully to a few treatments and then relapse in a week or two.

The results of shock treatment in dementia praecox were first reported as remarkably encouraging and cures in as high as 85% of patients were claimed. With the passage of time, it has been found that many of the supposed recoveries were only temporary improvements. However, the recovery rate is still definitely higher with treatment than without it and the length of the patient's hospitalization can usually be changed from several months to a few weeks with the help of convulsive shock therapy. Psychiatrists are tending to agree that insulin shock produces a higher percentage of remissions than does convulsive shock in dementia praecox.

Some cases of psychoneuroses have been treated with convulsive shock therapy with good results. Cases of anxiety state, neurasthenia and hypochondriasis in general tend to be improved by convulsive shock therapy. Our results with cases of obsessive compulsive neurosis have been poor and some of the patients have become more agitated after the treatment.

Contraindications.—From a psychiatric standpoint, there are very few contraindications to convulsive shock therapy. In general it may be said that if the treatment does not help the patient, it will not harm him either. Several of our cases of dementia praecox have had acute excited periods after the course of treatment had been finished. From a physical standpoint, there are remarkably few contraindications — especially to electroshock therapy. We have had no mortality rate in our series of 412 patients treated with electroshock and 182 patients treated with metrazol. A survey of American institutions gives a mortality rate of 0.05% with electroshock, and 0.17% with metrazol. We have treated patients with decompensated rheumatic heart disease, with electrocardiographic and clinical evidence of former coronary occlusions, and with pronounced vascular hypertension. We have treated two patients with histories and physical findings of former cerebral thromboses. In none of these cases were any noteworthy untoward results noticed.

Complications.—The complications are remarkably few. Although extensive experimental work in laboratory animals has shown the presence of petechial hemorrhages and the formation of scar tissue in the brain after shock therapy, there has been little clinical evidence of organic brain damage. Toward the end of their course of treatment, many patients become markedly confused and their memories very poor. This, however, largely disappears in two or three weeks, although a few slight permanent memory defects have been observed. Fractures, especially compression fractures of the lower dorsal vertebrae, did appear to be a serious cause for trouble. However, this danger has been largely eliminated. The fractures are produced by a sudden forward lunge with acute flexion of the spine which occurs at the beginning of the treatment. This has been eliminated by hyperextension of the spine with a pillow or sand-bag placed under the back and the exertion of firm pressure on the anterior chest and shoulders by attendants during the treatment. In our series we have had one fracture of the hip and 3 fractures of the humerus with electroshock, one fracture of the hip and one fracture of the humerus with metrazol. These have all occurred in elderly patients, and were apparently due to the direct muscle pull during the convulsion. In 1941 Bennett introduced curare to paralyze the voluntary muscles during the treatment. We have adopted the practice of giving the curare (which is given intravenously three minutes before the treatment) to all patients over 50 years of age, and we have had no fractures since this procedure was introduced.

SUMMARY

Convulsive shock therapy, especially electroconvulsive shock therapy, is a relatively simple treatment which produces very gratifying results in many mental diseases. When the proper technique is used in its administration, the contraindications are very few and the complications negligible.

DISCUSSION

Dr. Francis J. Gerty (Chicago): A discussion on Dr. Evans' paper seems almost unnecessary. He has made his points clearly.

Perhaps you may wonder how it was that any one ever thought of purposely inducing convulsions in order to treat disease. I am sorry that Dr. Meduna, who was the first to use the convulsive treatment for schizophrenia, is not himself here to tell you how he

got that idea. It was based on his observation that rarely did patients with dementia praecox have seizures such as epileptics have. He thought that possibly there was something mutually exclusive about the two diseases and he undertook his experiments to induce convulsions in patients with dementia praecox.

I do not know whether I can subscribe to the thesis that patients with dementia praecox never have epileptiform convulsions. In a few cases I have seen schizophrenic or praecox patients who have had convulsions without having them induced therapeutically. In fact, we do not get our best results by the use of the convulsive treatment in cases of dementia praecox. Insulin shock seems to give somewhat better results.

In fact, all shock treatments are disappointing in many of the cases of dementia praecox. We have found that there are other psychotic conditions, particularly the psychoses of the various depressive types, which respond beautifully to shock treatment.

You may wonder why this is so. Neither Dr. Evans nor I can give you the answer, I believe. We can point to some of the theories that are offered by way of explanation.

Certain persons feel that the results are to be explained on psychological grounds — particularly on the basis of fear reactions. With the metrazol treatment, there is very definite fear and panic in the early part of the performance of each treatment. In electric shock treatment the fear factor is very much less.

I suppose we cannot entirely eliminate fear as an explanation because anyone who has the prospect of receiving a series of convulsive treatments, no matter how painlessly induced, must regard the whole procedure with some measure of fear.

Experimental evidence is accumulating rapidly that very definite changes in brain metabolism take place as a result of shock treatment. There are certain common factors found, regardless of the type of shock treatment. Means have been devised to measure the oxygen tension in the brains of animals under experimental conditions, and we have been able to study the effects of convulsion in these animals.

Much work has been done on carbohydrate metabolism and its relation to shock treatments. Certain hormonal substances have been found that indicate that shock treatments do produce hormonal changes which tend to counteract those found in some of the psychotic conditions.

This treatment undoubtedly produces excellent results in certain types of mental disturbance. In fact, the progress made here is in line with that which was found in another treatment which seemed very drastic at first — the fever treatment of paresis.

I think the best testimonial as to the value of the treatment of the convulsive type was found in the "Before and after" movie which Dr. Evans showed you of elderly depressed patients who had been benefited by this treatment.

In closing I might remark that with his usual modesty Dr. Evans has failed to tell you that he was one of the first to report on the use of convulsive treatment in elderly patients. He was well prepared to do this work by reason of his preparation in internal medicine before he specialized in psychiatry.

FACTORS INFLUENCING THE DURATION OF ACUTE TONSILLITIS

M. Tamari, M.D.,
AND
Alex M. Berman, M.D.
CHICAGO

It is well known that certain meteorological factors such as sudden storms, rapid fall of temperature after a heat wave and sudden fall of air pressure, not only influence but definitely favor the incidence of acute infections of the throat. While weather conditions alone are not a direct cause of disease, yet it is an accepted fact that in many individuals changing weather conditions cause a lowering of resistance, which allows bacteria to overcome the natural body defenses and cause illness.

The relationship of seasonal differences and meteorological factors to some respiratory diseases have been described by Koerbel, Petersen, Fabricant, and others. Fabricant, especially, studied this influence in children. He found that a "cold front" i.e., when the temperature falls, humidity lessens and the barometric pressure rises, there is a sudden increase in acute tonsillitis in children. Grant was able to show that when the body surfaces were cooled there was produced an ischemia of the palate, pharynx, and tonsils. After the body warmed up again the anemia of the palate and pharynx slowly disappeared and the tonsils soon recovered.

Experimentally, it has shown that "cold shock" causes a sudden fall of the leukocyte count, a lowering of the blood pressure, and a decrease of the clotting time, which indicates a violent change in the biochemical balance of the blood. The decrease of the resistance of the body due to the lowering of the leukocytes and the loss of immune bodies in the blood stream can be measured by the method of Platonow,

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who devised a functional test of phygocytosis.

In a survey of upper respiratory diseases in children admitted to the medical pediatric service at the Cook County Hospital in Chicago in 1941, it was found that out of a total of 4941 cases admitted, 607 had upper respiratory infections. When these figures were analyzed according to months they showed that during the stormy days of January and March a very high percentage of admissions were upper respiratory infections. There was a gradual decrease in the number of upper respiratory cases during the succeeding months until June and then from July to October there was a gradual increase in the number of cases. These figures conform to our own findings on a larger scale which we are in the midst of completing at the Illinois Charitable Eye and Ear Infirmary in Chicago. In analyzing a large number of cases of acute tonsillitis at the Illinois Charitable Eye and Ear Infirmary, it was found that changes of season not only increased the number of cases but also prolonged the duration of acute tonsillitis and increased the number of complications.

The sharp increase in the number of upper respiratory infections during July and August over that of May and June can be explained on the basis of basal metabolism, which is variable, increasing with the falling temperature and decreasing as the temperature rises. Coinciding with the changes in metabolic rate is the ability of the body to produce immune bodies, which is high when there is an increased heat loss.

Other conditions which decrease the general resistance of the individual and prolong the duration of acute tonsillitis are rickets in children, anemias, tuberculosis, and other debilitating diseases. In adult females an acute attack of tonsillitis is prolonged and healing is much delayed during the menstrual period. According to DeLee, the incidence of tonsillar infections is increased during menstruation. During menstruation there is a dilitation of the capillary bed, decreased blood pressure and erythrocytes and an increase in the metabolic rate, together with a shift of the hydrogen ion concentration toward the acid side. All these factors, therefore, influence and prolong acute tonsillitis during this period. The findings during menstruation are similar to that which is found in chillling of the body surfaces. Coinciding with the change of the acid base balance there is an alteration of the calcium metabolism which causes an impairment of the normal mucosal function. There is also marked necrotic loss of the epithelial lining in acute tonsillitis during the menstrual state.

The tonsil consists of a reticulum of adenoid tissue with individual lymphoid nodules distributed in groups. In the region of the crypts the adenoid reticular tissue extends very closely to the epithelium. Under the free epithelial surface lining the adenoid tissue is separated by a large irregular band of connective tissue.

Waldapfel and Grossmann have shown that acute tonsillitis is characterized by a type of phlegmonous inflammation. The centers of the folliculi are filled with polymorphoneuclear leukocytes and streptococci. The streptococci are mostly intracellular. The outer lymphocytic layer of the follicular nodule does not show any changes. The lacunae are filled with epithelial debris, leukocytes and streptococci. The latter are of the same type as are present in the nodules. In our own study of histological slides we also found that acute tonsillitis is a disease of the whole tonsil rather than the surface of the tonsil alone.

The normal healthy mouth contains a great many saprophytic pathogenic, micro-organisms of various types. However, the streptococci and pneumococci are mostly responsible for acute tonsillar infections. Whereas streptococcic tonsillitis, assuming that no other peritonsillar complication exists, runs a normal course of from two to three days, the resolution of pneumococcic tonsillitis is always delayed. Pneumococcic angina usually runs a mild course, but delayed resolution or rather prolongation of the attack is typical for this specific type of infection. The prolonged course is due to the fact that pneumococcic casts in the crypts resolve very slowly, which is similar to pneumococcic resolution in the lungs. Histologically this can be particularly well observed in the adenoid tissue where both a transitional and respiratory epithelium exists.

Local conditions extending an attack of acute tonsillitis are chonic infections of the teeth and mouth, chronic sinusitis, and chronic infectious diseases of the larynx, trachea, and bronchi. In these cases not only does decreased resistance

play a role, but also local irritation through coughing, reinfections, or the constant bathing of the tonsillar area by infectious secretions from the sinuses or bronchi, etc., cause an extended course.

Swabbing, painting, and washing the crypts, as well as suction of the tonsils during acute attacks, are mechanical therapeutic efforts which retard the normal healing process. Traumatism to the superficial folliculi often cause deeper defects and granular reaction of the tonsils and hinder the normal course of tonsillitis.

A prolonged course of acute tonsillitis was observed in several cases where an abnormally long styloid process was present either within the tonsil itself or in the pillars. The styloid process often is made up of multiple bony fragments linked together by connective tissue. In these cases during acute tonsillitis an accompanying periostitis ensues which not only prolongs the duration of the disease but also increases the pain.

Tonsillotomy or incomplete tonsillar removal, either intentional or otherwise, as is still practiced in some sectors, could also be considered a mechanical insult. Infections of stumps or larger tonsillar remains are marked by more prolonged and painful duration.

In histological studies on tonsils which were reoperated because of recurrent and prolonged attacks of tonsillitis, we found that the surface epithelium was thinned out and the papillae were absent. In this latter regard the process of repair of the epithelial lining resembles that of the skin, which after covering the wound does not contain papillae under that area. The crypts of the tonsil, covered with new epithelium partly disintegrate or give rise to cystic degeneration. Just below the "papillae-less" and "crypt-less" epithelium, one can find, in the loose connective tissue, large lymphoid spaces, and small remnants of sub-epithelial folliculi. The reinfections of the lymphatic spaces are mostly responsible for the increased duration of an acute attack of tonsillitis, and often lead to extra tonsillar complications.

A typical acute tonsillitis with prolonged course occurs often if the infection is superimposed on tonsils having previous infective changes. We observed a case of acute tonsillitis having a septic temperature for three weeks. The patient was a seven year old female that had had several bouts of acute sore throat previously. The last attack started with an upper respiratory infection. Culture of the tonsillar smear showed pneumococcus lanceolatus. After sulfonamide therapy was instituted, the patient recovered. Three months later a tonsillectomy was performed. Microscopic examination of the excised tonsils revealed a typical tuberculosis of the adenoid tissue with large tubercules in the subepithelial layer and typical multi-neucleated giant cells of the Langhans type.

Cystic degeneration of the tonsillar tissues is another factor that increases the duration of an attack of acute tonsillitis. A typical example of such a case was a colored female, 56 years old, who complained of frequent sore throats that lasted two to three weeks over a period of several years. She stated that during the attack her tonsils grew larger. Examination revealed medium sized almost normal looking tonsils, having a smooth epithelium and at the lower pole of each tonsil was a whitish area about 2 mm. in diameter. General physical examination was essentially negative. The tonsils were removed and studied histologically. The outer epithelium was found to be thinned out, homogenous, and devoid of papillae. The stroma showed large cystic dilitations throughout. The adenoid tissue was scanty and near the crypts it was reduced to a small layer. The cyst contained much desquamated epithelial cells plus cholesterol crystals. The inner epithelial lining was a thin squamous layer originating from the covering of the crypts. In this case the inflammatory attack always involved the cystic areas, and the surrounding atrophic adenoid tissues recovered slowly, thus giving rise to a prolonged painful course of tonsillitis.

Still another factor influencing the normal course of acute tonsillitis is incomplete radium or x-ray therapy, which is used for destroying adenoid tissue. Formerly radiologic treatment of tonsils was urged because it was thought that the mucosa and the crypts could be sterilized. Later radio-therapy was advocated for the total destruction of tonsil tissue.

In the Illinois Eye and Ear Infirmary we observed a case of a 2½ year old female who had frequent sore throats and was given the usual

doses of x-ray. Three months after x-ray therapy she developed an acute tonsillitis. Three months later she had another attack. One month after the second attack and seven months after x-ray treatment tonsillectomy under general anesthesia was performed. The patient has had no complaint since. Microscopic examination showed that although the tonsils were reduced in size, a large proportion of the lymphoid tissue was still present. The epithelial lining was partly thinned out and near the outlets of the crypts it was partly cornified. The subepithelial connective tissue was found to be thickened and the vascular sheaths were enlarged and also thickened. The individual follicles were in several places encircled by connective tissue while the reticulum of the folliculi presented a mosaic of thin and thick trabeculi. The capillary walls showed sclerotic changes. Many of the follicles appeared homogenous because of the loss of differentiation between the inner and outer layers. We believe the above pathological changes are an explanation of the prolonged course of the acute attacks because the reactive power of the adenoid tissue was reduced by the fibrosis of the individual follicles. We should like to emphasize that even with present day improvements in x-ray technique, recurrences of acute tonsillitis cannot be avoided and that changes in connective tissue, adenoid tissue, and cystic crypts hinder the normal recovery.

Tonsils treated with radium were found to show the same pathological findings as those treated with x-ray. Tonsils, previously treated by radium, showed a prolonged more painful clinical course during an acute attack than untreated ones. An example of this type of case was a 46 year old white female who had her tonsils treated for a period of six months by means of radium needles. In spite of sufficient radium applications she suffered recurrent painful attacks of acute tonsillitis lasting 10 to 19 days. The tonsils were finally removed by surgery. The excised tonsils were small but hardened. The peritonsillar tissue was also hardened. Microscopic sections revealed that the adenoid tissue was still present. The epithelial lining was thinned out and underneath was a dense layer of connective tissue. Some of the follicles were found adjacent to the epithelium and were of normal appearance. Others strained more deeply and showed a disarrangement of the central structures. The glands in the supratonsillar fossa and those in the adjacent muscular fibers showed fatty degeneration in several places. In the upper pole of the tonsil was seen large trabeculi and distinct cartilaginous rests were present in the connective tissue. This cartilage was metaplastic, having an accumulation of cartilage cells and showed a lack of intracellular tissue. The presence of intracellular tissue is characteristic of the type of cartilage found in tonsils that are remains of primitive cartilage from the second bronchial pouch. In several places there was seen bony metaplasias of the cartilage. Fresh calcium deposits with destruction of the cartilage, new marrow tissue spaces, and changes of the cells into osteoblasts were seen. A large connective tissue band showed a direct ossification of the fibrous tissue cells. We assume that in acute attacks of tonsillitis cases such as these also have infections of the cartilage and bony tissue, which causes prolongation of the attack and a more painful clinical course.

In summing up all that has been said, it appears clear that the normal reaction of the tonsil to an inflammation depends upon the state of the mucosa, the connective tissues and the normal arrangement of the follicles. In cases where the mucosal lining loses its permeability or where the connective tissue fails to absorb the toxic material and where the reticuloendothelial system is disarranged the normal defensive setup is destroyed.

SUMMARY

Our investigation has shown that acute tonsillitis with prolonged duration is epidemic at certain periods of the year when there is a sudden change of air pressure and temperature. Other factors such as general debilitating disease and anatomical anomalies such as elongated styloid processes or embryonic cartilage remains also extend the duration of acute tonsillitis. Specific bacterial characteristics such as that demonstrated by the pneumococcus and the traumatisms of the mucosa and incomplete surgical procedures which alter the normal mucosal state also are responsible for the extended course.

Menstruation not only increases the incidence of acute tonsillitis, but also during this time

the angina is more severe and healing takes place more slowly.

Superimposed infections delay the defensive action of the follicles and the vascular system; while secondary degenerations such as cysts, obliteration of the lacunae and the lymphatic tissue all aid in prolonging resolution.

Insufficient irradiation either by x-ray or radium which does not destroy the adenoid tissues but alters the structure of the tonsillar organ also prolongs the clinical course of acute tonsillitis.

BIBLIOGRAPHY

Koerbel, W.: Zusammenhaenge zwischer Wetter. Monatschrift fuer Ohren 71: 573-587, 1937.

Fabricant, N. D.: The Climatic Factor in Precipitating Acute Tonsillitis in Children. The Journal of Pediatrics. Vol. 15: 697-703, 1939.

Mills, C. A.: Climate and Metabolic Stress. Amer. J. Hyg. 29: 147, 1939.

Petersen, Wm. F.: The Patient and the Weather. Vol. I — IV , Ann Arbor, 1937-1938.

Tschiasny, K.: Critical Considerations to X-ray Treatment of Tonsils. Monatschrift fuer Ohren. 66: 1444-1452, 1932.

DISCUSSION

Dr. George H. Woodruff, Joliet: I can find little with which to disagree in the opening paragraphs of this article. It is, as the authors state, an accepted fact that in many individuals changing weather conditions cause a lowering of resistance, which allows bacteria to overcome the natural body defenses and cause illness. I have several times noted that the first definite break in the more or less prolonged heat of summer, occurring often in early September or late August, ushers in an uprising of colds and sore throats. Whether this is due solely to chilling of the body surfaces, or whether pressure and humidity changes in themselves play a part, I do not know. In order to learn more of this, experiments could be conducted in which only one factor is allowed to vary, other factors remaining constant. For instance, temperature would be raised or lowered, but the barometric pressure and relative humidity would be kept constant. Studies of the various defense substances, such as the leukocytes and other factors, could then be carried out, and data obtained as to the effect of air pressure variations, variations in relative humidity and temperature changes respectively. Doubtless some of these experiments have already been made. When we attain control of weather and climate we might then know what type to provide.

I wish the authors would clarify the effect of changes in the basal metabolic rate on the production of immune bodies. I understood them to say that increased heat loss enabled the body to increase its production of immune bodies. I would deduce from this that an increase in the basal metabolic rate would be accompanied by an increased production of immune bodies. Is this correct?

The effect of menstruation on acute tonsillitis is of considerable interest, and this might obviously be taken into account in giving a prognosis.

The difference in the severity and duration of streptococcic and pneumococcic angina is of interest. If an accurate determination of the causative organism could always be made, this again might be of value in prognosis. Doubtless either of these types, if at all severe should have the benefit of sulfatherapy. This should materially alter the severity and, to some extent, the duration of the attack.

As the paper states, the existence of other chronic infections of the respiratory tract usually leads to prolongation of tonsillitis, though this may not always be true. It may be possible, at least theoretically, that immue bodies present in cases with chronic infections might in some instances aid in cutting short acute attacks.

I have never been an over-ardent throat swabber or painter. One or two early experiences in having my own throat so treated tended to make me believe that the treatment only added to the insult to the mucous membrane. However, some patients seem to experience marked benefit from carefully made applications. I believe many patients are fairly shrewd judges as to the beneficial effects of treatment, and I believe if they say that carefully made applications of medicaments help them they are in many instances correct. Also, Francis Lederer, speaking of acute tonsillitis, says in his "Diseases of the Ear, Nose and Throat" — "early thorough topical application of a 5 to 10 per cent solution of silver nitrate frequently aborts the attack. Prompt relief of pain is experienced by the patient as the result of the silver solution. It may be repeated daily until all inflammatory symptoms have subsided." Part of this effect may be due to the laying on of hands, but to say that topical applications never help is, I believe, somewhat of an exaggeration. I realize that the authors' deductions are made after the study of pathologic sections, but I do not believe that such deductions are always correct.

The explanation of the increased duration and severity in cases with an elongated styloid process is ingenious, to say the least. I must confess that I have never given any thought to the styloid process in acute tonsillitis, but I can see that periostitis might sometimes occur. I agree that incomplete tonsillar removal often makes the tonsils more of a menace than they were originally. Tonsils partly destroyed by electrocoagulation perform much as do those incompletely removed by surgery, except that they are prone to lead to even more trouble in the presence of a subsequent acute tonsillitis. This is probably due to increased formation of fibrous connective tissue, not only on the surface but also in the depths. Isolated areas of infection without adequate protection are apt to result.

Perhaps one of the most interesting points made by Drs. Tamari and Berman is the effect of previous

x-ray or radium treatment in prolonging acute tonsillitis. A few years ago radiation was advocated by some as a substitute for tonsillectomy. We no longer hear so much of this and, from the authors' observations, it appears that x-ray and radium treatments are not the methods of choice in destroying the lymphoid tissue of the tonsils.

In general, this paper appears to be a logical and realistic approach to the subject. Although at first glance the subject does not appear to be an extensive one, I think that after hearing the paper we realize that it is extremely extensive. In fact, much more than twenty minutes could easily be devoted to but one phase of the discussion. Obviously, there is a place for almost unlimited work in some of the fields mentioned in this paper. I wish to congratulate Drs. Tamari and Berman on their scientific approach to this subject.

Dr. Robert H. Good, Oak Park: I was very much interested in that case where the tonsil was diathermized, or treated with radium. Tonsillar stumps have a more severe and longer period of induration, he said, and that is very interesting. I have an idea why this should be the case. When surgical diathermy is done and considerable tonsil tissue removed, but some left in there, it heals so that often scar tissue closes one or more of the crypts. Then inflammation takes place in these stumps and drainage has to occur through the lymph tissue. If you remove the tonsils surgically and leave a stump, only those which have one or more of the crypts will be longer in the period of induration, but those stumps left open, when the crypts remain open, those do not have a longer period of inflammation. I was very much interested in this.

Dr. M. Tamari, Chicago (closing): I want to thank Dr. Woodruff for his discussion. Concerning painting of the tonsils, we agree with Dr. Woodruff that we have to do it sometimes, but solutions like silver nitrate coagulate the surface, and repeated painting will seal the crypts.

CONTINUOUS CAUDAL ANALGESIA IN OBSTETRICS

Eli Lilly and Company, Indianapolis, announces the release of a 16-mm. silent motion picture in color on the subject, "Continuous Caudal Analgesia in Obstetrics." The film is available to physicians for showing before medical societies and hospital staffs. It deals with the history, anatomy, and physiology of caudal analgesia and demonstrates the technic of use in obstetrics.

The film was made at the U. S. Marine Hospital, Staten Island, New York, by authorization of the Surgeon General, U. S. Public Health Service, and the demonstrations were carried out by the originators of the technic, Dr. Robert A. Hingson and Dr. Waldo B. Edwards.

MEDICAL AND PUBLIC OPINION MOUNTING AGAINST HEALTH BILL

Journal Says This Indicates An Awareness Of The Tremendous Stakes They Have In Wagner-Murray-Dingell Measure

During the past two months there has been a mustering of medical and public opinion against the Wagner-Murray-Dingell bill which indicates an awareness by the medical profession and the public of the tremendous stake that they have in this legislation, *The Journal of the American Medical Association* for September 4 points out. *The Journal* calls for unity in the medical profession in the attack on the technic for rendering medical service proposed by this legislation. *The Journal* says:

"Hearings on the Wagner-Murray-Dingell bill, which was fully analyzed by the Bureau of Legal Medicine and Legislation of the American Medical Association and commented on editorially in *The Journal,* June 26, will no doubt be held in the near future, probably after Congress has completed the new tax bill. According to the *United States News,* advocates of the expansion program for social security assert that it has caught the popular fancy, that pressure for its adoption is increasing daily, that the plan is a big step toward one of the Four Freedoms of the Atlantic Charter — Freedom from Want — and that Congress would face a storm of public criticism if it failed to approve the main provisions of the plan. On the other hand, opponents assert that the program would constitute a capital levy of ruinous magnitude on United States business, that even with the 12 per cent payroll tax the plan would be underfinanced, and that, should Congress enact such a bill, a dominant bureaucracy would be created which would end free enterprise in the United States and alter the whole way of American life.

"The editorial published in *The Journal* on June 26 emphasized that this bill is an evolution of the National Health Conference of 1937. It pointed out further that the measure was prepared without consultation with the medical profession, that it would make the Surgeon General of the United States Public Health Service a virtual 'gauleiter' of American

medicine and that it would be, in fact, the acme of bureaucratic control of medical service. In the two months that have passed there has been a mustering of medical and public opinion against this measure, indicating awareness by the medical profession and the public of the tremendous stake that they have in this legislation. The editor of the McKeesport (Pa.) *Daily News* states the case succinctly:

> It would place the doctors under political control and provide for the mass of the people physicians who are politically amenable rather than those with superior abilities and skills. And would deaden one of the most highly regarded professions the world has ever known. . . . Success of bill 1161 and the destruction of the freedom of American medicine would be the come-on for other broader, more revolutionary schemes to circumscribe the American people.

"The periodical *America* says, in a statement by one of its editors:

> Now, will public regimentation of health servants operate to preserve the profession and thus ultimately help to preserve the body politic? It seems that such action—as, for example, that contemplated in Senate bill 1161—would create a new class of political doctors. And in America political classes are commonly subject to the influence of political practice, in seeking emoluments and avoiding burdens, unless we take the rare case of the unusually elevated individual. The system as it works does not raise personal ideals. But doctors without high personal ideals are a menace, both to the patient and to the public.

"An editorial in the Middletown (Ohio) *News Signal* says:

> The Wagner bill will be considerably modified, but some of its worst features may become law unless it is seen in its true light. It is part of a program, now well advanced, to enslave the individual to the state. In this process he gradually loses his adult self reliance, lapses toward infancy and then degenerates into a willing slave of government.

"The Charleston (S. C.) *News-Courier,* in a sarcastic editorial contribution, emphasizes the political aspects of this measure. It suggests that the medical administrators under the Wagner-Murray-Dingell bill be elected by popular ballot. The medical administrator would have the right to appoint the doctors and assign the cases. He could expect the support of the doctors that he appointed to help him get reelected, and the doctors would use their automobiles and C cards to help haul voters to the polls. They could also contribute to a fund to buy radio time for campaign speakers. Any doctor who worked against the medical director's reelection might find it difficult afterward to practice. Appointments in the medical colleges would, of course, be handled like other political patronages so that deserving party members could have their sons trained free of charge. Incidentally, it is pointed out, a lot of useful confidential information could be picked up by the doctors on their rounds that would help the party to stay in office.

"And the Jackson (Tenn.) *Sun* comments metaphorically:

> We are indeed a sick nation if we are willing to swallow such a pill. After swallowing it we would find that, instead of taking a progressive stimulant, we had taken a political opiate intended to dull our senses. . . .

"The editor of the Buffalo *News* suggests that the proposed measure provides for a setup 'closely approaching that in the totalitarian nations.' He urges, furthermore, that the people, if they have put upon them the full measure of social security proposed by the New York senator, 'soon would be in a condition to yield themselves up as wards of the state.'

"At its meeting held in Chicago on August 26, the American Bar Association gave its approval to a resolution opposing any legislation now before Congress which 'seeks to establish federal control of the medical profession and the regimentation of doctors and hospitals.'

"The periodical *Medical Care,* edited by Mr. Michael Davis, suggests that the Wagner-Murray-Dingell bill was introduced on the demand of organized labor for the expansion of social security and that the timing may be accounted for by the probability that realists who are pushing this bill are more hopeful of dramatizing an issue for 1944 than of congressional action this year. The editorial indicates, incidentally, that the bill goes beyond the plans put forth by the President and the Social Security Board.

"In his editorial Mr. Michael Davis suggests that American physicians can now be divided into three groups: those who support the policies of the American Medical Association, those who differ with them but who keep silent and those who differ and say so publicly. Mr. Davis takes great encouragement from the statement recently released by Drs. John Peters, Shanning Frothingham and others which apparently indicates to him a division in the medical profession and a gathering of strength against the policies of the American Medical Association.

"Already an announcement has been made in press that Senators Wagner and Murray propose to have early hearings on this measure. Certainly the Board of Trustees and the newly established Council on Medical Service and Public Relations will give early consideration to the manner in which the American Medical Association is to be efficiently represented in the proposed hearings.

"Regardless of any other considerations on which there might be a difference of opinion among the vast majority of physicians of the United States, unity is demanded in the attack on the technic for rendering medical service proposed by the Wagner-Murray-Dingell bill. Senator Wagner in his public statement said 'I do not claim this bill is in any sense a perfect instrument; it is offered simply as a basis for legislative study and consideration.' Let us take the Senator at his word and prove to him and his colleagues, by a complete and forceful presentation of the points of view of American medicine, how far from perfect is the measure that he has proposed."

PENICILLIN RESEARCH COMMITTEE ISSUES FIRST CLINICAL REPORT

It Is A Remarkably Potent Antibacterial Agent, National Research Council Group Declares From Study Of 500 Cases

Penicillin is a remarkably potent antibacterial agent which can be given by injection into a vein (intravenously), into a muscle (intramuscularly) or by local application but it is ineffective when given by mouth, the Committee on Chemotherapeutic and Other Agents, of the Division of Medical Sciences, National Research Council, declares in *The Journal of the American Medical Association* for August 28 in a statement outlining the findings from a study of 500 cases of infection treated with the substance. The committee is composed of Chester S. Keefer, M.D., Boston, chairman; Francis G. Blake, M.D., New Haven, Conn,; E. Kennerly Marshall Jr., M.D., Baltimore; John S. Lockwood, M.D., Philadelphia, and W. Barry Wood Jr., M.D., Baltimore.

Other conclusions from the study reported by the committee are that following intravenous or intramuscular injection penicillin is excreted rapidly in the urine, "so that in order to obtain an adequate amount of potent material in the circulating blood and tissues it is necessary to inject penicillin continuously or at frequent intervals; that is, every three to four hours.

"Penicillin has been found to be most effective in the treatment of staphylococcic, gonococcic, pneumococcic and hemolytic (blood destroying) streptococcus infections. It has been disappointing in the treatment of bacterial endocarditis (inflammation of the membrane lining of the heart). Its effect is particularly striking in sulfonamide resistant gonococcic infections.

"While the dosage schedule requires additional investigation, it seems clear that the average patient requiring intravenous or intramuscular injections for serious staphylococcic infections requires a total of between 500,000 and 1,000,000 Oxford units, and the best results have been observed when treatment is continued for at least ten days to two weeks. At least 10,000 units should be given every two to three hours at the beginning of treatment, either by continuous intravenous injection or by interrupted intravenous or intramuscular injections.

"Satisfactory results are obtained in sulfonamide resistant cases of gonorrhea following the injection of 100,000 to 160,000 units over a period of forty-eight hours.

"Patients with pneumococcic pneumonia frequently recover following the use of 100,000 units given over a period of three days. This is especially important in sulfonamide resistant pneumococcic infections. . . .

"Toxic effects are extremely rare. Occasional chills with fever, or headache and flushing of the face have been noted. . . ."

The Oxford unit, so called because the first extensive work on penicillin was done at Oxford University, England, is that amount of penicillin from a particular batch which will destroy a given number of Staphylococcus aureus (pus producing organisms). Different batches of penicillin vary in the number of Oxford units they contain. In the September issue of *Hygeia, The Health Magazine* E. K. Gubin, Washington, D. C., explains that 160 quarts of mold culture will yield 10 grams of penicillin, which is sufficient for about one hun-

(*Continued on page* 278)



Honor Roll

DOCTORS IN SERVICE WHOSE NAMES
HAVE NOT APPEARED IN EARLIER LISTS

BY NAME AND COUNTY

Acher, Robert P., Peoria
Adams, Eli L., Cook
Agamy, Glen N., Will
Allen, Melvin Aaron, St. Clair
Alsberg, Curt, Cook
Aranoff, Joseph, Peoria
Aronson, Howard G., Cook

Balcke, Louis A., Tazewell
Barringer, Floyd S., Peoria
Barnai, Andrew, Cook
Bartelt, William F., Cook
Bell, George O., Calhoun
Birch, John B., Cook
Blumenthal, Helmut, Cook
Buss, Paul G., Gallatin

Callahan, George Brandle, Lake
Calosio, Richard, Will-Grundy
Campbell, Michael J., Cook
Conforti, James H., Cook
Coomber, Ralph B.
Costich, Kenneth J., Cook
Couch, Cleon C., Peoria
Crain, Ransome C., Cook

Daly, Anthony J., Winnebago
Dangremond, Gerrit, Lake
Davis, Edward W., Cook
Del Chicca, Silvio, Cook
Dereng, C. L., Cook
Dorne, Ralph M., Cook
Dozad, Delos Robert, Cook

Eichenberger, Charles, Jasper
Ernest, Dwight M., Peoria

Feldman, Harold, Tazewell
Ferguson, Edward V., Madison
Fine, Charles S., Crawford
Fleischner, C. A.
Fonvielle, William Bassette, Winnebago
Fox, Francis Harry III, Coles

Galt, Raymond M., Cook
Gastyer, Theodore, Cook
Gladson, James Edward, Perry
Gomberg, Bernard, Cook
Gray, Claude C., St. Clair
Gumbiner, Bernard, Cook

Hall, Byford I., Perry
Hansen, Stephen John, Effingham
Hardinger, John D., Cook
Harvey, Earle A.
Hausmann, Edwin, Winnebago
Hendricks, Clifford A., Adams
Hobson, E. R., Macoupin
Hoffstadter, William, Cook

Jacobs, Herbert Max, Whiteside
Jacobs, Robert M., Whiteside
Jaffe, Ewald Menachem, Kankakee
Jensen, J. M. L., Cook
Johnston, Ray C., Peoria

Kamenetz, Leo B., Lee
Klein, Samuel, Will
Korey, Herman G., Cook
Kreiger, Lesle W., McHenry
Kuhlman, William K., Cook
Kurth, Milton E., Cook
Kwedar, David J., Lake
Lakin, Herbert S., Cook

Lang, Morris, Cook
LaScola, Raymond L., Jasper
Loerner, Clinton Sawyer Main, Peoria

Mathis, John, Peoria
Maxwell, Sam Browning, Cook
Mayer, Edward J., Whiteside
McCloskey, James D., Madison
McKeever, Robert J., St. Clair
Medaris, Donald E., Piatt
Menton, Harry Mirko, Rhode Island
Maginn, Richard Joseph, Clay
Malcolm, William A., Peoria
Mathis, John A., Perry
Metzger, Herman, Cook
Meyer, Norman C.
Miller, Walter U., Cook
Miyamoto, Robert M., Will
Morris, Kenneth, Cook
Moses, Eugene, Rock Island
Motel, William G., Cook

Oppenheimer, Eric, Cook
Otis, William H., Cook

Perusse, George L. J.
Peyton, Samuel R., Cook
Pilot, Isador, Cook
Powell, Paul Wayne, Rock Island
Proby, Edmund A., Cook
Pugh, Warren E., Cook

Rettinger, Leo M., Will

Sack, Charles I., Cook
Schorr, Hyman Joseph, Cook
Schwartz, Leslie, Cook
Siegel, Vivien P., St. Clair
Smith, Charles J., Cook
Sneider, Milton J., Cook
Sparer, Phineas Jack, Vermilion
Speigel, Irving J., Cumberland
Stamler, Allan E., Cook

Stanmar, Stanley U., La Salle
Stepan, Charles E.
Stites, Hugh D., Mercer
Stubenrauch, C. H. Jr., Mason
Sullens, William E., Cook
Szilagyi, Miklos J., Cook

Tanenbaum, Lewis, Cook
Thrasher, Irving Dana, Cook
Tobin, John Robert Jr., Kane

Varzino, Louis S., Cook
Vidal, Candido B., Cook

Waldman, Jerome, Cook
Walpole, Ben, Winnebago
Weatherley, Howard Everett, Cook
Wells, Gideon R., Cook
West, Stephen Lewis, Kankakee
Whaley, John H., Cook
Whitrock, Robert M., Cook
Williams, Jack, Cook
Wilson, Henry Mason Jr., Peoria
Wisshack, Erich Eugene, McDonough
Wolfe, Preston E., Cook
Wolski, Joseph B. Jr., Cook

Zekman, Theodore N., Cook
Zelle, Charles Kane, Cook
Zimmerman, Edward F., Cook
Zoltan, Joseph, Cook

PENICILLIN RESEARCH

(*Continued from page 276*)

dred standard doses and that it has been estimated that under present manufacturing conditions 1,000 grams of penicillin would cost nearly $50,000 to produce.

The report of the committee is based on the studies conducted by twenty-two groups of investigators accredited to the committee. As has been pointed out in recent announcements, the amount of penicillin that can be produced is not sufficient fully to meet the needs of the armed forces, thus little, if any, of the substance is likely to be available for civilian use for some time.

The committee says that since the question of adequate or optimum dosage of penicillin has not been clearly defined, the objective in treatment should be the maintenance of a sufficient concentration of penicillin in the blood to inhibit completely the growth of the individual infecting organism.

The committee points out that the reason that the substance is ineffective when given by mouth is that investigators have shown that the gastric juice destroys penicillin rapidly at body temperature, the destructive action appearing to be due to hydrochloric acid.

Of particular importance is the declaration of the committee regarding strains of various organisms that are resistant to penicillin. The committee says that "It is of considerable interest that penicillin fast strains of pneumococci are susceptible to the sulfonamides and that sulfonamide resistant strains of pneumococci are susceptible to penicillin. Moreover, C. M. McKee and C. L. Houck have shown that an increase in the resistance of organisms to penicillin is associated with a proportional loss of virulence, an observation that is in striking contrast to the retention of virulence by sulfonamide resistant cultures.

"Obviously, more information is needed concerning penicillin resistant strains and their mode of production, since it may aid one in interpreting the clinical results or failure. . . ."

Regarding the results of treatment of Staphylococcus aureus infections with bacteremia (infection of the blood stream), the committee says that 60 per cent of 91 patients recovered or improved under treatment so that recovery followed later. Death occurred in 37 per cent and no effect was observed in 3 per cent.

"In a group of such infections in which the fatality rate is so high," the committee says, "these results are very impressive, since the over-all fatality rate in this group without penicillin or sulfonamides is usually about 85 per cent. . . . The failures only serve to emphasize the great importance of early diagnosis and immediate and adequate treatment. . . ."

Of 55 patients with osteomyelitis (inflammation of the bone marrow or the bone and marrow) 48 recovered or improved and 7 showed no effect. However, it is pointed out by the committee that final statements concerning the ultimate outcome of these cases cannot be made until several years have passed.

Of 129 cases of gonococcic infection, all of which were sulfonamide resistant, 125 were free from symptoms and were bacteriologically negative within nine to forty-eight hours after treatment. These finding lead the committee to declare that "Here, then, is a most potent weapon in the treatment of sulfonamide resistant gonorrhea and it is not too much to predict that penicillin will prove to be one of the most effective agents in the treatment of a disease that causes great ineffectiveness in the armed forces and in the civilian population."

Industrial Health

Committee On Industrial Health — Frederick W. Slobe, Chm., 2024 South Western Ave., Chicago, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington, Milton H. Kronenberg.

COUNTY INDUSTRIAL HEALTH COMMITTEES

Industrial Health Committees have now been organized in most of the industrial counties in Illinois. In some of these counties questionnaires have been sent to all physicians, requesting information pertinent to industrial health practice. It is hoped that the chairmen of these county committees will take early steps toward the development of a program devoted to matters pertaining to industrial health to be held at one of the regular meetings of the county medical society. The State Committee will be glad to cooperate in the development of such programs.

Concerning the objectives of the medical profession in industrial health and hygiene, you are referred to the Industrial Health Section of the Illinois Medical Journal for May, 1943. One of the purposes of the article in the May issue was to serve as a basis or outline for presentation by local physicians at industrial health conferences fostered by county medical societies.

All local chairmen are also encouraged to write to Dr. Carl M. Peterson, Secretary of the Council on Industrial Health of the American Medical Association, 535 N. Dearborn Street, Chicago, for the general plan and procedure suggested for local activities in industrial health.

The Educational Committee of the Illinois State Medical Society also has speakers available for talks on industrial medical and surgical subjects, either at medical meetings or in large industries where popular health talks may be arranged. Concerning this, please communicate with Miss Jean MacArthur, c/o Illinois State Medical Society, 30 N. Michigan Ave., Chicago or with the state chairman.

EMPLOYING THE HANDICAPPED

Due to medico-legal implications of employing individuals with physical defects, the experience in Connecticut with the signing of waivers by employees is interesting. Mr. Leon J. Noonan in the National Rehabilitation News (July 1943, volume 9, Number 4) discusses the experiences in Connecticut:*

"The chairman of the Workmen's Compensation Commission of Connecticut explains the history and administration of the waiver statute in his state. This legislation provides that 'Whenever any person having a contract of employment, or desiring to enter into a contract of employment, shall have any physical defect which imposes upon his employer or prospective employer a further or unusual hazard, it shall be permissible for such person to waive in writing for himself or his dependents, or both, any rights to compensation under the provisions of this chapter for any personal injury arising out of and in the course of his employment, or death resulting therefrom which may be found by the commissioner having jurisdiction to be attributable in a material degree to such physical defect..'

"During the time that this provision has been in our law there have been no cases in which compensation has been refused because of the

*Bulletin on Current Literature of the National Society for Crippled Children, Elyria, Ohio. Vol. 4, No. 7, July 1943.

existence of a waiver and hence no case involving this feature of the law has gone on appeal either to our Superior Court, or to our Supreme Court of Errors. In our opinion this is an indication of the fact that the waiver is not the unjust and dangerous thing that it is represented to be by those outside this state who have had no experience with the administration of a waiver statute. Other states have adopted it since we first made it a part of our law. The employer wants it, labor does not seriously object to it, our Commission approves of it and our Rehabilitation Department finds it helps considerably in placing handicapped people in jobs."

THE TREATMENT OF HYDROFLUORIC ACID BURNS*

By Division of Industrial Hygiene National Institute of Health

Hydrofluoric acid burns may occur among workers making, transporting, and using anhydrous hydrofluoric acid and aqueous solutions of hydrofluoric acid. Hydrofluoric acid is used in etching glass, manufacture of fluorides, pickling of metals, manufacture of ceramics, processing of textiles, and as a catalyst in oil refining.

The burn from the aqueous solution of hydrofluoric acid may not be felt until an hour or more after exposure, but the burn from anhydrous hydrofluoric acid is felt immediately. The length of time elapsing after exposure, before the burn is felt, depends upon the concentration of the acid. If the exposure is for a short time, a minute or so, to a low concentration, or momentarily to a high concentration, a blanched white slightly edematous macerated appearing area of skin is seen. If the exposure is for a long period to a low concentration or for a minute or so to a high concentration, the skin appears red and turns to a greyish purple with considerable edema and tension.

Burns from hydrofluoric acid may be placed into three classes:

(1) Those resulting from concentrations up to 20 per cent which manifest themselves several hours after exposure by a deep seated reaction.

(2) Those from concentrations of approximately 20 to 50 percent in which the latent period is shorter.

(3) Those from concentrations of approximately 60 per cent to anhydrous hydrofluoric acid in which the burn is felt shortly after or immediately upon exposure.

First Aid.—Workers who have had hydrofluoric acid in contact with the skin should immediately step under a drenching shower and immediately remove all the clothes, and then receive medical attention as quickly as possible. If the eye is affected it should be copiously flushed with water as soon as possible. If it is anticipated that 20 minutes or longer will elapse before medical attention is received, then apply to the burned area a wet dressing consisting of 20 per cent magnesium oxide in glycerin or a magnesium oxide-sulfate paste.

General Treatment.—If it is known that the acid only touched a localized site, such as the hand or arm, it should be immersed in running water for three to four hours, the triple dyes applied and over this a dressing with magnesium oxide paste.

Calcium gluconate 10 per cent should be injected as soon as possible into, under, and around the burn to prevent spreding and to relieve pain.

The periphery and base of small ulcers should be injected with the gluconate solution and the base curretted and treated with the triple dyes.

If the nails are painful, swollen and discolored, a local anesthetic should be injected at a considerable distance from the inflamed area and the nail opened down to the matrix. This relieves the pressure and pain. A portion of the nail is cut away, calcium gluconate injected into the matrix, the triple dye applied, and the part dressed with the magnesium oxide paste dressing.

Nasal ulceration should be treated by gently wiping away the crusts and generally keeping the nasal mucosa clean. It can be prevented or kept from progressing by proper exhaust vents over operations, by wearing suitable respirators and by the insertion of petroleum jelly into the nose.

If the eye is burned, it should be washed every five minutes with physiologic saline solution until the physician arrives. Severe

*Prepared in consultation with medical and technical personnel of manufacturers of this acid.

pain may be alleviated by instilling a drop of local anesthetic into the eye (avoid cocaine if possible). If the cornea is also affected and there is photophobia a drop of a 1 per cent solution of atrophine may also be instilled. It is advisable to put an occlusion dressing over the eye which may be removed later on and followed by dark glasses.

Workers handling hydrofluoric acid should be provided with necessary safety appliances including long heavy neoprene gloves which should be washed daily inside and out with water and allowed to dry in the air.

Workers should be educated as to the hazards of hydrofluoric acid and the necessity of prompt medical attention to burns from it because prompt attention markedly reduces the severity of burns from hydrofluoric acid.

SAFETY HINTS

Physician, in his plant contacts, should develop a knowledge of precautionary measures to prevent hazards. In "Safety Engineer" June 1943, H. P. Heyne, Safety Engineer of the Ohio Industrial Commission, summarizes a few of the frequently encountered conditions and their remedies as follows:

Conditions	*Solutions*
1. Traveling Crane	1. Use limit switch
2. Portable ladder	2. Use safety bases
3. Sanitation	3. Cleanliness
4. Housekeeping	4. Orderliness
5. Chisel	5. Should be mushroomed
6. Floors	6. Should not be slippery or uneven.
7. Chain links	7. Watch for stretching and elongation.
8. Grinding Wheel	8. Use steel hoods.
9. Wire rope	9. Look for kinks and frays
10. Gears	10. Use enclosure guards
11. Overhead Platforms	11. Use guard rails and toe boards
12. Lights	12. Use reflectors
13. Elevators	13. Should have gates
14. Dusts and Fumes	14. Should have exhaust
15. Fire fighting equipment	15. Should have sprinkler heads
16. Unsafe practices	16. Instruct working personnel
17. Gasoline	17. Guard against explosion hazard
18. Electric Arc Welding	18. Use helmets and shields
19. Permanent ladders (20' or more in height)	19. Use safety cages
20. Engine lathes	20. Use safety dogs
21. Shock tools	21. These include hammers, chisels, and sledges
22. Squaring Shears	22. Guard knives
23. Wheelbarrows	23. Use knuckle guards
24. Power Press	24. Ram should be enclosed
25. Tracks	25. Use switch levers
26. Wood Jointer	26 Should have Cylindrical head

"PROTECTED PRODUCTION"

Safety Engineering, July 1943, has an editorial, based on a theme by Robert Clair, an insurance executive, which is partially quoted as follows:

"Use of the phrase 'safety and production,' to describe the object of organized accident prevention work, has grown increasingly conventional in our profession since 1920 when Sidney Williams first recognized and began to talk about this happy relationship.

"The phrase safety and production has never been completely satisfactory as I believe it is largely responsible for the still prevalent belief that when safety and production function together they do so as entirely separate, though synchronized, forces or activities. I am still meeting too many industrial executives and foremen who are 'so busy getting out production that they have no time for safety.'

"To assist such people to understand more quickly our basic idea, it seems to me that we should be able to find a better name or phrase to present the fact that the *essen-*

tials of production (men, machines, and material) when integrated or fused with safety fundamentals (protective devices and safe methods) actually produce a new element.

"The process of bringing this new element into being may be compared to the smelting of two metals to form a new alloy.

"My suggested name for this new element is 'Protected Production,' and I know of no phrase or symbol in present safety literature which describes this new element or alloy.

"*Protective Production* is uninterrupted, smooth, maximum, and on time—what our country must have to achieve victory."

SUGGESTIONS ON "IN-PLANT" FEEDING

A pamphlet of master menus for all types of in-plant feeding facilities will shortly be made available by the Nutrition and Food Conservation Branch, Food Distribution Administration. The purpose of this chapter is merely to present a few suggestions.

Each meal served within the plant should supply the worker with at least one-third of his daily dietary requirements.

A la carte menus are wasteful of food, serve to increase the cost of food to employees and increase the serving time. They do not encourage the employee to select a nutritionally complete lunch. Workers will complain more if their meals lack sufficient variety from day to day than they will over a limited choice at any one meal.

The mid-shift meal service should offer the worker a limited choice of nutritionally satisfactory lunches, with as much variety, from day to day, as possible.

A cold lunch can be as nutritionally adequate as a hot lunch.

Special lunches emphasizing the use of alternate foods, can be offered at slightly lower than prevailing prices to increase their acceptability. At least one such lunch should be offered at every mid-shift meal period.

Foods used as alternates for rationed items should be true alternates, and not substitutes. For example, cheese, fish, poultry, the variety meats and certain dried beans and legumes can be considered truly to be alternates; whereas spaghetti and macaroni cannot be so considered.

Milk and other protective foods might be offered at or below cost to encourage their consumption in preference to nonprotective foods such as pastry, soft drinks, etc.

All white bread and white flour used should be of the enriched variety.

All margarine should be fortified with vitamin A.

Table salt should be iodized.

FOR DAYLIGHT SLEEPERS

Mr. Charles Collins in "A Line o' Type or Two" in the *Chicago Tribune*, August 5, 1943, submits the following paragraphs applicable to night-shift workers. Besides illustrating how the laity feels about this subject, there are some practical pointers which should be of help to night-shift workers who often need considerable guidance during their periods of adjustment.

"Equip your bedroom windows, if possible, with opaque green shades.

"Use blinders when awakened by sunlight. Any soft, black material with strings to fit loosely over the ears will serve. A black silk stocking will also do the trick. Blinders for day sleepers have been a minor article of commerce for sale to bookworms, students, and newspaper editors. It is possible that some manufacturer has become aware of their need among war workers of the night shifts. Shop around if the little woman can't produce a homemade job.

"Do not try to get up early to enjoy Nature or play golf. A night worker should sleep longer than a day worker anyway.

"Avoid luncheon engagements. Your noontime meal should be breakfast at home. Do not let any one persuade you to blend it with his or her luncheon downtown. Freedom from the luncheon habit is the first step toward emancipation of the spirit.

"Say 'Good morning' as long as you feel like saying it. If the day workers remind you that it is afternoon, answer merrily, 'Not in my life.'

"Keep the icebox well stocked with appetizing stuff for suppers at midnight or later. But avoid coffee then.

"If annoyed by daytime racket in your own establishment, hang a placard on your bedroom door that reads: 'Quiet, please. Night-shift war workers sleeping.'

"Console yourself at all times with the thought that you have been freed from the ancient curse of riding streetcars in the roaring, jostling currents of average humanity."

The following exerpts are from the *Manual on Industrial Nutrition* distributed by the Food Distribution Administration, Nutrition and Food Conservation Branch.

BASIC CONSIDERATIONS FOR AN "IN-PLANT" NUTRITION PROGRAM

The major causes of malnutrition in the United States can be classified into four groups: Poor food habits, failures in provision, economic factors, and metabolic stress. The Committee on Nutrition of Industrial Workers of the National Research Council has pointed out that conditions of unusual metabolic stress "such as illness, increased working hours, extremes of temperatures to which workers are frequently exposed, speed-up of work, insufficient rest, etc., which increase energy consumption, produce a proportionate increase in the body's nutritional requirements. There is the additional consideration that illness and other conditions of metabolic stress are often accompanied by a deterioration in the quantity and quality of the individual's food intake. The effects upon the individual of nutritional deficiencies acquired during such periods may be long standing and far reaching."

Obviously, efforts to improve the nutritional status of workers should be directed simultaneously along three lines: Education, provision and economy.

EDUCATION

1. Form a nutrition committee within the plant, representing employees and management. Where safety, grievance, or employee health and welfare committees already exist, they can furnish the nucleus of the nutrition committees. This committee can be given the responsibility for the organization and execution of the nutrition program.

2. An "opening rally" might be arranged to launch the nutrition program, with a professional speaker to give a short talk on nutrition. Motion pictures on nutrition might be shown.

3. The plant's cafeteria or canteen system, through serving foods of good nutritional value in an attractive fashion, can be an extremely important educational influence.

4. Classes and demonstrations on nutrition can be conducted by the plant physician or dietitian, or through arrangements with the local nutrition committee or other community groups.

5. A dietitian, or an industrial nurse trained in nutrition, employed in the medical department and under the supervision of the plant physician, can be made available to the employees for dietary advice.

6. Nutrition information can be made a regular feature of plant publications.

7. Flyers can be used suggesting daily menus, describing food groups and alternates for rationed foods, or listing foods of good nutritional quality which are in season or on the market at reasonable prices. Such flyers can be kept timely and can be used as guides by the worker's family.

8. Pamphlets on nutrition can be distributed to the workers and their families.

9. Posters emphasizing the importance of good nutrition or creating an interest in good food habits can be placed about the plant, especially in the lunch rooms and where employees must pass or wait in line. Material which can be changed from time to time or which provokes a personal interest in the program is especially effective. The plant management might sponsor a poster contest among employees' children, or among the school children in the community.

10. Where periodic physical examinations are held, the addition of a few questions on diet to the medical history will serve to stimulate employee interest in nutrition, will have an educational effect and will enable the medical department to define the existing nutrition problem. The dietary history might take the following form:

Do you get at least 1 pint of milk daily?
If not, how much do you get?
Do you eat at least 4 eggs every week?
Do you eat either orange, orange juice, tomato, tomato juice, grapefruit, or grapefruit juice daily?

Do you get at least 1 serving of another fruit, either canned, dried, or fresh daily?
Do you eat at least 1 serving of another vegetable beside potato each day?
Do you eat either a green leafy vegetable or a yellow vegetable each day?
Do you eat raw cabbage or salad greens daily?
Do you eat at least 1 serving of lean meat, fish, poultry or cheese each day?
How often do you eat any kind of liver?
How many servings of enriched white bread and fortified cereals do you get each day?
How many servings of dark whole grain breads and cereals do you get each day?
Do you regularly use butter or margarine on your bread?
If you use margarine, is it fortified with vitamin A?
In the space below, fill in 3 actual meals eaten, naming the *kind* of food as whole wheat bread, or white, etc.

Breakfast Lunch Dinner

PROVISION AND ECONOMY

1. The plant food facilities should be surveyed and evaluated. If it is impossible or impractical to have a plant cafeteria, mobile or stationary canteens or box-lunches should be considered.

2. Each meal served within the plant should be designed to furnish at least one-third of the worker's daily dietary requirements. Employing a well-trained dietitian to manage the cafeteria would serve at the same time to increase the nutritional value of the meals and decrease the overhead. Small plants in a community might jointly employ one nutritionist to supervise the quality of the meals served and the marketing for each of them. In other instances, small plants may call upon the local nutrition committees for advice.

3. Ideally all cafeterias, canteens, refreshment stands, etc., should be under plant management and run on a nonprofit, nonloss basis. A cafeteria should not be a means of obtaining funds for employee functions or benefits or for any purpose other than improving the food service and the quality of the meals. It is probable that in some instances a concessionaire may be better equipped to efficiently operate the cafeteria than the plant management. The plant management, however, should never divorce itself from responsibility for the quality of the meals served and the cost of the meals to the employees.

4. Intelligent marketing serves to keep down costs. Such marketing requires an understanding of the nutritional values of different foods, in addition to a knowledge of where and when to buy.

5. Foods of relatively low nutritional value, e. g., candy, sugar, soft drinks, and highly milled nonenriched cereal products, should be replaced, insofar as feasible, by foods of greater nutritional value.

6. The Food and Nutrition Board of the National Research Council has recommended the enrichment of white bread and flour, the fortification of margarine with vitamin A, and the general use of iodized table salt. On January 18, 1943, a Government order, making it mandatory to enrich all white bread, went into effect. Plant management should make certain that all such products, served within the plant, are enriched or fortified as recommended by the Food and Nutrition Board.

In the three years following the last war more people died from famine and preventable disease than were killed in the war itself, hence the importance attached to the present organization of post-war relief. The principal regional medical officer, British Ministry of Health, holds that the lives and health of millions in Europe as well as the physique and welfare of a generation to come depend on how well this preparatory work is done. He visualizes four principal problems — the provision of food, the supply of medical necessities, the control of such diseases as typhus, malaria, tuberculosis, and dysentery, and the reestablishment of the medical, hospital, and public health services in each country. Ed. Jour. Royal Inst. Pub. Health & Hyg. Mar., 1943.

In discussing the examination of children for tuberculosis, let it be stressed once again that any plan ment and periodic testing and chest X-raying of that embraces the young folks and neglects preemployteachers, janitors, food handlers and other adult personnel is incomplete, unsound educationally, dangerous and destined to overlook probably the most potential as well as the most potent sources of tuberculosis within the institution. Additionally, a program that examines the positive reactor without tracking back to the source of his infection is equally unfinished and open to criticism. Charles E. Lyght, M.D. N.T.A. Bulletin, May, 1943.

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

Announcement has been made of the election of Dr. A. P. Merrill, Medical Director of St. Luke's hospital, Chicago to the American College of Hospital Administrators. He is one of 46 administrators to receive such distinction this year.

Dr. Fred O. Tonney, former director of laboratories and research for the Chicago Board of Health, has been named health officer of District No. 2, comprising Lake, McHenry and Boone counties. His headquarters are at Woodstock.

The American Congress of Physical Therapy at its meeting in Chicago September 11th announced that the 1943 gold key award of the Congress would go to Dr. John S. Coulter in recognition of his many years of effort for the advance of physical therapy.

The American Hospital Association's annual "award of merit" was presented on September 13th to Dr. Arthur Charles Bachmeyer, Director of University of Chicago clinics. He was the fifth person to receive the award, a gold medal, highest honor the Association bestows.

Dr. Malcolm T. MacEachern of Chicago, Associate Director of the American College of Surgeons, has been appointed chairman of the American Hospital Association's council on international relations. The council was established to promote better hospital care over the world. It will cooperate with the Office of Inter-American Affairs and plans to assist in maintaining reciprocal relations with all the hospital groups in the world.

Lt. Com. George L. Drennan of Jacksonville was the guest of honor and speaker at a special luncheon meeting of Morgan County Medical Society on August 24th. He has been on duty in the dispensary at San Francisco for the past year and half and his talk concerned the Naval medical procedure at his station.

A joint meeting of the physicians and dentists of Greene County was held in White Hall on September 10th. Dr. Willian F. Lauten of Chicago gave a practical lecture on "Management of Facial Bone Fractures."

The University of Illinois has just announced that by agreement with the state department of public welfare the university has taken over the management of the professional services of the Illinois Eye and Ear Infirmary, 904 Adams Street. Dr. Harry S. Gradle will continue as chief of staff of the institution and will become professor of ophthalmology at the university. Dr. Peter Kronfeld will become director of education and assistant professor of ophthamology. The welfare department will continue to be responsible for the maintenance of the hospital.

William Stoneman, foreign correspondent, with the Chicago Daily News recently wrote a story which appeared in the Tribune for

September 14th — "With the Fifth Army Near Salerno, September 13. — Among those present when American troops moved into Italy south of Naples were 30 physicians and 18 nurses from the Chicago district belonging to an evacuation hospital, an out-growth of the original Michael Reese Hospital unit which was formed in Chicago."

The Peoria Medical Society reports that its doctors in service are scattered throughout the world. There are several in Australia, England, Southwest Pacific, North Africa and at least one in India, besides other localities.

Dr. Nathan S. Davis of Chicago, Assistant Prof. of Medicine, Northwestern University Medical School, has been honored by the Mississippi Valley Medical Society as its Distinguished Service Award Recipient for 1943. The award, consisting of a gold medal and certificate, was presented to Dr. Davis by the society's president, Dr. Edward M. Meyers, at the annual banquet on the occasion of the ninth annual meeting at Quincy, Ill., Sept. 30.

LIEUT. COMDR. CHARLES E. BALDREE JR. CITED

Lieut. Comdr. Charles E. Baldree Jr. (MC), U.S.N.R., formerly of Belleville, Ill., has been cited for "splendid service" to wounded Americans evacuated to his ship. The citation came from Lieut. Gen. S. B. Buckner Jr., who is commanding general of all U. S. forces in the Alaska area where Dr. Baldree is stationed. The citation reads as follows:

"Reports have reached me from several sources concerning the splendid service rendered by you to U. S. Army troops wounded at Attu and evacuated to your ship. Your untiring efforts and professional skill greatly alleviated the suffering of our troops during their trying voyage.

"I wish to convey my appreciation of your magnificent work and trust we may be so fortunate as to have the benefit of your services again in this theater."

Dr. Baldree, who graduated from the University of Tennessee College of Medicine in 1928, entered military service in August 1942. — *J.A.M.A., Sept. 25, 1943.*

COMING MEETINGS

October 5 — Vermilion County — Edward W. Cannady — "Diagnosis and Treatment of Coronary Disease" — 6:30 P. M. — Danville.

October 5 — Williamson County — E. Ralph May — "Mental Health in General Practice" — Evening, Herrin.

October 8 — Will-Grundy County — Norris J. Heckel — "Pyuria and Hematuria, Causes and Management." — 12:00 Noon, Louis Joliet Hotel, Joliet.

October 12 — Winnebago County — Rockford — Armand J. Quick — "Liver Function Tests.

October 12 — Kankakee County — Leo K. Campbell — "Diabetes" — Kankakee.

October 12 — Rock Island County — Stanley Gibson — "Acute Abdominal Conditions in Children" — Evening.

October 15 — Will-Grundy County — Arkell M. Vaughn — "Surgical Treatment of Varicose Veins" — Noon, Louis Joliet Hotel, Joliet.

October 20 — Kane County — Harold M. Camp — "Medical Legislation" — Evening, St. Charles Hospital, Aurora, 6:30 dinner.

October 20 — DuPage County — Evening — Walter L. Palmer, "Diagnosis and Treatment of Peptic Ulcer and Gastric Carcinoma"

October 21 — Ogle County — Dinner 6:30, Rochelle Country Club, Rochelle

October 21 — Henry County — Kewanee 6:30 — Arthur Sprenger and Harold Vonachen of Peoria presenting program.

October 22 — Will-Grundy County — Don Sutton — "Heart Disease" — Joliet, noon.

October 28 — Franklin County — 8:00 P. M. Community House, Zeigler.

October 29 — Will-Grundy County — H. Necheles — "Physiology of Shock and of Blood Substitutes" — Noon, Louis Joliet Hotel, Joliet.

November 18 — Tri-County — Monmouth — 4:00 P. M., two speakers, dinner and evening program with Robert S. Berghoff talking on "Management of the Common Heart Ailments"

November 2 — Williamson County — Charles G. White — "Heart Disease" — Evening, Herrin.

November 11 — La Salle County — Walter Schiller — "Ovarian Cyst Pathology" — Kaskaskia Hotel, La Salle — 6:30.

MARRIAGES

Julius Katz, Grafton, Ill., to Miss Kathryn Kuhn of Fort Wayne, Ind., at Columbus, Ohio, August 11.

Thomas J. McDonnell, Sterling, Ill., to Miss Eileen O'Donnell of Chicago, August 7.

DEATHS

Frederick T. Avery, Palos Park, Ill.; Northwestern University Medical School, Chicago, 1894; aged 74; died, June 19, in the Englewood Hospital, Chicago, of hypertension, heart disease and pulmonary edema.

John M. Berger, Chicago Universiy of Illinois College of Medicine, 1908. For 25 years, a surgeon on the staff of Garfield Park Community Hospital. In 1917 he entered the army medical corps and attained the rank of major. Died of a heart attack September 23, 1943 at the age of 60.

Robert J. Burns, Freeport; Rush Medical College, 1896. Had practiced medicine in Freeport for 47 years. Served as Health Commissioner for several terms. For many years he took an active interest in public health devoting considerable attention to combatting tuberculosis. Died September 15, 1943 at the age of 72.

Harry Edwards Clyde, Evanston; Medico-Chirurgical College of Philadelphia, 1899. Former member of the staff of Evanston Hospital. Practiced medicine in Evanston for 35 years. Died September 3, 1943 at the age of 65.

Lucy Gusta Coon, Urbana; State University of Iowa College of Medicine, 1927. For the past seven years was a member of the student medical center of the University of Illinois. Died August 29, 1943 at the age of 46.

Matthew Corbett, Chicago; University of Illinois College of Medicine, 1890. Practiced medicine in Chicago for 53 years. Died September 12, 1943 at the age of 80.

Samuel A. Myers Hubbard, Ridge Farm; Loyola University School of Medicine, 1916. Served in France in World War 1. Died in September, 1943 at the age of 54.

Charles Warren Hunter, La Grange; Rush Medical College, 1894. Practiced medicine in La Grange for 20 years but moved to Port Byron a few years ago. Served in World War 1 as a Major. Died in September, 1943 at the age of 74.

Charles B. Irwin, Chicago; University of Maryland College of Medicine, 1904. Was a vice president and medical director of the North American Life Insurance Company. Died of a heart attack September 21, 1943 at the age of 62.

Sylvester C. Kehl, Chicago; University of Illinois College of Medicine, 1919. For many years pediatrician for Chicago Lawn Infant Welfare Station. Was on Senior staff of Holy Cross Hospital. Veteran of World War 1. Died of a heart ailment September 23, 1943 at the age of 48.

Frederick Henry Martin, Libertyville; The Hahneman Medical College and Hospital, 1899. Served as a captain in the medical corps in World War 1. Died August 18, 1943 at the age of 71.

Perry Lewis Noggle, Edwardsville; St. Louis College of Physicians and Surgeons, 1895. Died in Miami, Florida, August 11, 1943, after an illness of several months, at the age of 75.

Charles Elvie Peel, Watseka; Barnes Medical College, St. Louis, 1906. Had practiced medicine 45 years. Died August 25, 1943 at the age of 74.

Elza Levi Williamson, Calhoun; Denver College of Medicine, 1900. Member of the Calhoun school board. Died September 12, 1943 at the age of 65.

Case-finding efforts in adolescence and early adult life should be directed toward persons having recent household contact with sputum-positive tuberculosis. Prolonged supervision of persons exposed during childhood is not indicated unless household exposure is continued or recurs in adult life. H. L. Israel, M.D. and H. DeLien, M.D. Amer. Jour. Pub. Health. Oct. 1942.

Let us be warned that tuberculosis still shows no sign of adopting the forty-hour week. Charles E. Lyght, M.D. Amer. Rev. of Tbc. Sept., 1942.

Someone said that of all the millions of species of living organisms on the earth the two about which most had been written were man himself and — the tubercle bacillus. Biological Aspects of Infectious Disease. F. M. Burnet, M.D. 1940.

P. R. N.

The Jocular Jingles of C. G. F.

by

Charles G. Farnum M. D.

Peoria, Ill.

OCTOBER
SEASONABLE SONNETS

October comes with yellows, reds and browns,
A last gay flare as vegetation dies;
With autumn clouds old Mother Nature frowns,
And drenches us with tears from leaden skies.
October brought Columbus to this land,
Quite likely on an Indian Summer day,
At Halloween the kids take things in hand
To prove that savages are here to stay.
Our out-of-door sports in autumn reach their peaks,
The hopeful golfer bravely tries and tries,
We greet world series baseball games with shrieks,
Blood pressure surging to their all-time highs,
While football thrives in colleges and schools,
Commiting mayhem to a set of rules.

Geriatric Jocularaties

One day I met Uncle Timmie on the street.

"Why, Uncle Timmie," I said, "it is really good to see you. You have not been in to see me for a long time. Where have you been all summer?"

"Well Cha-arlie ye know I ain't much of a hand to be gallavantin' around but me ould frind Jim Donovan is buildin' himself a new house an' Joe an' Nora wuz comin' to town so I cum along. I bin up to see Jim an' his new house. It's a fine house he's buildin' it is."

"I am glad to hear it, said I, "When does he expect to get in his new home?"

"Well, he sed he ixpicted to git in by Siptimber but they's wan thing I've learnt about buildin' houses an' that is ye must niver ixpict to git in whin ye expict t' git in."

AN ODE TO B. P.

When I lie helpless on my bed,
Nor can I move or lift my head,
Full many ministrants come to my aid
That shortly one by one from memory fade.
But thee I can't forget,
Thou'rt in my memory yet,
Tho' I berate in bitter terms
And thoughts of thee cause writhes and squirms,
Thou art a staunch tho' much despised friend,
Loyal and faithful always to the end.

THE OLDER ONES

It seems that younger golfing folks
Insist on taking vicious pokes
At all the older persons who attempt to play the game;
With lordly animosity,
And often real ferocity,
They call the older golfing ones the halt, the blind and lame.

The young hit balls most viciously,
They often start auspiciously,
But end in other fairways or in some far distant rough;
Approaching irons are over clubbed
And all too many shots are dubbed,
They often hit them much too hard, sometimes not hard enough.

The old ones shoot consistently
And play right on persistently,
The scores when they are counted show scant preference for years;
So we conclude this golfing game,
Which rarely brings us golfing fame,
Requires but little muscle but a lot between the ears.

Patient — "Doctor, how long after this broken leg will I be able to play a good game of golf?"
Doctor — "Well, you must not expect too much from a broken leg."

THE WORM TURNS

I am a patient humble,
I'm rarely known to grumble
At indignities I suffer from my nurse;
They dress my wounds so painful,
Give enemas so baneful,
No matter what it is, it might be worse.

Nauseous doses bring the tears;
Sticky soap is in my ears;
Icy alcohol is rubbed upon my chest,
Crumbs of food are in my bed;
I've no choice in what I'm fed;
But at trifles such as these I'd not protest.

But how I curse and sputter
And search for words to utter
The vehement protest surging through my head.
'Tis rank insinuation,
In truth an allegation,
When they put a rubber sheet upon my bed.

Sophistes the Seer saith, "My son, be not hasty in the exaltation of thy pride if perchance certain honours are bestowed upon thee. Bide thy time and withhold thy judgment. All too oft that which seemeth a wreath of laurel becometh in a brief while a crown of thorns."

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Mead Johnson & Company, Evansville, Indiana, U.S.A.

Book Reviews

Endoscopic Prostatic Surgery, First Edition. Professor of Clinical Urology, College of Medical Evangelists, 232 pages, 104 illustrations. By Roger W. Barnes, M.S., M.D., F.A.C.S., C. V. Mosby Company, St. Louis, Mo.

This is a timely discussion and among the first, as the procedure has not been in general use long enough to have an adequate discussion in all its aspects in one publication. It has a real purpose to fulfill in supplementing those residents and younger urologists who are in the process of developing endoscopic prostatic technique. There is no substitute for actual experience but a simple discussion, as herein presented, of all phases of this procedure make it a very valuable one for those especially in their developing stages.

There is a chapter on the pertinent anatomical points connected with endoscopic surgery and attention is directed to the necessity of being a competent and experienced cystoscopist before any attempt is made to become a resectionist and this includes obviously a complete understanding and recognition, cystoscopically, of the various anatomical structures involved.

A well organized discussion on prostatism is presented with his personal indications and contra-indications for surgical management for each type.

The routine examination of the patient with prostatism is taken up in great detail and could well serve as a guide for those not entirely familiar with this phase of prostatic surgery.

The author wisely states that his indications for resection may not be the same as for all other surgeons, as this phase of the work must vary with each individual surgeon, but there is presented a full discussion of this subject which is fundamental and thorough. Work of this kind would not be complete without a thorough discussion of the pre-operative management of patients with prostatism as well as the meticulous care and detail necessary for their proper management after resection. A complete discussion of the various anesthetics available for this operation is completely and sensibly discussed.

There is enough history of the procedure in the work, as well as the development of various instruments in perfecting the procedure, to satisfy academic interest although this has not been carried to the boring stage.

Without much doubt the section on actual technique with accompanying illustrations will be very helpful to those developing technique and gaining experience and could be used with value by many others presumed to have developed a technique. The author is to be congratulated upon an honest discussion of the various pitfalls of the procedure and the complications resulting not infrequently from endoscopic prostatic surgery. This chapter alone, in conjunction with post-operative care, could be carefully scrutinized with benefit by any urological surgeon regardless of his experience.

This is a very timely monograph, well organized, simply presented and should have a real place in the development of younger men in the field of endoscopic prostatic surgery.

H.C.

(*Continued on page* 34)

CIGARETTE DIFFERENCES

as shown by the rabbit-eye test



Into *this* eye was instilled the smoke solution from PHILIP MORRIS Cigarettes—

Into this eye was instilled the smoke solution from *ordinary* cigarettes—

NOTE THE DIFFERENCE in Edema. Average produced by *ordinary* cigarettes: 2.7. Average produced by PHILIP MORRIS: 0.8. CLINICAL TESTS showed that when *smokers* with irritation of the nose and throat due to smoking changed to PHILIP MORRIS, every case of irritation cleared completely or definitely improved.

From tests published in Proc. Soc. Exp. Bio. and Med., 1934, 32, 241-245. Laryngoscope, 1935, XLV, No. 2, 149-154.

BOOK REVIEWS (Continued)

MENTAL ILLNESS: A Guide for the Family by Edith M. Stern with the collaboration of Samuel W. Hamilton, M.D., New York. The Commonwealth Fund. 1942. Price $1.00.

The author states that this book is dedicated to the thousands of anxious men and women who have mentally ill relatives. It is also one that should be thoroughly read even though an individual may not have a mentally ill relative.

The book itself is brief, consisting of only 121 pages. But in these pages is contained a great deal of value. It is in no sense a psychiatric text-book, even though much of its material is psychiatric in nature. Its various sections are concerned with the following topics:

A Healthy Attitude Toward Mental Illness
When Mental Illness Strikes
Why Hospitalize?
Life in a Mental Hospital
Some Treatments for Mental Illness
The Permanence of Recovery
Continued Care

The chief charm and value of Miss Stern's book lies in the fact that, even though a technical subject is under consideration, it is not written in technical language. It is the sort of book that any layman can pick up, read in a few hours' time, and come away with a pretty thorough idea of what mental illness is all about. Moreover, it does not frighten the reader — as such books all too often tend to do either by the technicality of expression or by its outlook on psychiatry.

But even greater than this, perhaps, is the fact that neither mental illness, nor the treatment of the mentally ill, is considered in a mysterious or hushed-up manner. The facts are clearly, but briefly, stated and no attempt is made to hide anything. Mental illness is treated as any other disease, and mental hospitals are regarded in the same way as other hospitals. It is impossible for anyone, even the trained psychiatrist, not to read this book and have many of his ideas changed — for the better.

For this reason, it is recommended that it would be well for the practicing psychiatrist to keep this book on his desk to lend to his patients, even though they have no relatives who are under psychiatric treatment, for at the very least anyone reading this book will come away with a much better understanding of himself as a human being. R.T.H.

THE MIND AND ITS DISORDERS: By James N. Brawner, M.D., Medical Superintendent Brawner's Sanitarium, Smyrna, Georgia. Walter W. Brown Publishing Company, 223 Courtland St., N.E., Atlanta. Price $3.50.

The author states in the Preface of this book that he is attempting to describe briefly and in simple language the neuroses, psychoneuroses, and psychoses. It is written largely for the physician who has no particular background in psychiatry other than his daily contacts with patients, and who find most textbooks describing nervous and mental disorders to be obscure and technical.

In content, it is divided into the following sections:

Part I concerns a brief description of mental reactions as related to cerebral functions.

Part II is devoted to the etiology, symptomology, and treatment of the psychoses.

Part III is concerned with a description of the neurosis and psychoneurosis.

Part IV gives a brief description of related subjects.

On the whole, this is a book that should prove valuable to the practicing physician. In no sense is it a text-book, but it provides a general overall picture of the psychiatric field. It is particularly strong in the first two sections, and, in addition, provides other text references that should be of aid to the reader seeking more information. In most instances it is brief and to the point, thereby enabling the reader to assimilate a great deal of information in a short period of time.

A quarrel, however, may be picked with the author in his point of view that psychiatry is closely related to internal medicine: that is, that somatic diseases which affect the functioning of the higher cerebral mechanisms are the main etiological factors. While this is an opinion that cannot be ignored in such a study, it is one that will also obviously not find much favor among certain psychiatric thinkers. And this point of view is one that does color the whole book.

Nevertheless, Dr. Brawner is to be congratu-

(Continued on page 36)

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BOOK REVIEWS (Continued)

lated for his clearness of presentation. Few, if any, purely theoretical matters are presented and for this reason alone the book is of value to the practicing physician. R.T.H.

War Endocrinology, By James H. Hutton, M.D., Chicago. The Wayside Press, Mendota, Illinois. Privately printed, 1943.

For many years the author, who has devoted full time for over 25 years to the problems of endocrinology, has believed that a book should be written which would give the essentials pertaining to this subject in a clear, concise form which would be of maximum value to the general practitioner, and aid him in making an early diagnosis of the common endocrinopathies.

His book has been dedicated to the war effort in the realization that during the present world wide conflict, it is necessary to utilize American manpower to the best advantage, and that it is possible to detect certain types of endocrinopathies sufficiently early to institute proper treatment with resulting benefit to those in essential war industries, or perhaps even to those in combat troups.

The book was written especially for the general practitioner who is unable to go through the present day voluminous mass of endocrinological literature, and benefit materially through its perusal. Little space in the book is given to the consideration of the rarer types of endocrine disturbances, but the more common types especially referable to the pituitary, thyroid, adrenals, parathyroids, male and female endocrinology, the pineal and thymus, are presented in detail.

Endocrine factors of the gastrointestinal tract, the pancreas and diabetes and hypertension receive proper consideration. In eight interesting chapters the author has described the fundamental knowledge concerning the above mentioned endocrine subjects. There are also chapters on obesity, methods of study and endocrine preparations. The book was written with an expressed purpose in mind, and the author has condensed the text to the essential and rudimentary knowledge necessary for the average practitioner to enable him to recognize at the earliest possible moment, endocrinopathies.

Indeed, Doctor Hutton has done a fine job in writing this book, refraining from devoting too much attention to the more spectacular and rare endocrinopathies, and condensing a large mass of literature so that the general practitioner will get the essentials necessary for diagnosis of the more ordinary endocrine disturbances.

The author states "if this book should help in bringing a few Froelich children up to Army or Navy physical requirements or keep a few women war workers at their tasks, it will have been worth while". It is the opinion of the reviewer of the book that Doctor Hutton has done his part well. If the general practitioner who has this book available reads it carefully and applies the principles so clearly advanced, it will be of much service to many people.

The Mask of Sanity, By Hervey Cleckley, M.D.

"The Mask of Sanity" is, according to the author, an attempt to reinterpret the so-called psychopathic personality. In his experience, "no satisfactory means of dealing with them (the psychopathic personalities) was presented by any psychiatric authority, and meanwhile their status in the eyes of the law usually made it impossible to treat them at all. They continued, however, to constitute a most grave and a constant problem to the hospital and to the community." In these words the total reason for writing the book is presented.

In his presentation the author considers first of all the vagueness and diversity of psychiatric opinion about what is commonly called a psychopathic personality. Serious practical difficulties arising from legal and medical uncertainties about this problem are presented. He next considers the prevalence of this disorder, and then branches into a discussion of current interpretations of this psychopathic personality. Following this comes a brief distinction with other types of personality disorders. The final sections of the book are concerned with such questions as: "What is wrong with these individuals?"; "How do such personality changes occur?"; and "What can be done for them?". In connection with each of the various problems raised in his discussion, the author presents

(*Continued on page* 38)



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BOOK REVIEWS (Continued)

freely and fully from an apparent wealth of case-history material.

The book itself is of value because of its full-scale attack upon the problem of the psychopathic personality. All too often text-books pass over the subject as lightly as possible, leaving no clear-cut idea of the problem in the mind of the reader. Dr. Cleckley, however, makes the psychopath a definite psychopathic entity, and one deserving of as much consideration as the psychotic.

There is also much of value in the closing chapters, when the author makes suggestions as to possible ways of dealing with such individuals. He outlines no definite course, but offers the possibility of shock therapy, treatment by the methods of general semantics, or a therapeutic approach devised on the basis of gestalt psychology. But even while we consider such methods, his final plea—that these people be recognized as seriously ill, and, therefore, a consistent attitude toward them, as in the case of schizophrenia, must be held—demands deep thought on the part of anyone engaged in psychiatric work. R.T.H.

Fundamentals of Psychiatry, by Edward A. Strecker, M.D.

"Fundamentals of Psychiatry" is a brief book, but in its 180-odd pages it contains most of the practical workings of psychiatry. Dr. Strecker has covered his subject in an interesting way, and there is much of value for even the uninitiated in psychiatry.

In content, the book follows the traditional pattern of psychiatric volumes. There is mention made of the etiological factors in abnormalities of behavior, something on the classification of mental diseases, and several pages devoted to methods of examination and symptoms. From there the author branches into a discussion of organic psychoses, functional psychoses and psychoneuroses, toxic psychoses and defect reaction types. The closing chapter is concerned with the psychiatry of war, in which the author discusses war and the civilian, war and the soldier, and treatment of military neuropsychiatric disabilities.

It is this last chapter that will be particularly appealing to the reader, for only infrequently do psychiatric text-books make mention of this problem. And in it, the author presents a refreshingly clear point of view. In addition, his discussion of the treatment of nervous and mental diseases, both organic and functional, is up-to-date.

If any criticism of the text can be made, it is that, in order to fully understand many of the author's viewpoints, a pretty thorough knowledge of psychiatry is demanded. The casual reader, or the physician whose background in this subject is not large, might find himself in deep water from time to time. Part of this difficulty, of course, can be traced to the fact that the author is attempting to trace, in as short amount of space as possible, a very large field. Another reason may be found in that Dr. Strecker avails himself of only a minimum amount of case history material, and even that is presented in outline form.

Nevertheless, the book is one that should be of considerable value to one who seeks a quick, over-all picture of the subject; or to the student who wishes a comprehensive outline of the subject; or to that person who, from time to time, needs to refresh himself on the salient points of psychiatry. R.T.H.

Surgical Physiology, By Joseph Nash, M.D., Assistant Professor of Clinical Surgery, New York University College of Medicine; Associate Visiting Surgeon, Bellevue Hospital; First Lieutenant, U. S. Army, M.C., etc., Charles C. Thomas, Springfield, Illinois, 1943. Price $6.00.

Physiology as one of the important basic sciences necessary for the proper training of medical students, is likewise of interest to all physicians throughout their professional career. Some phases of the subject are of greater interest to men in certain specialties, while other practitioners are naturally more interested in other aspects of physiology. The author in this book has endeavored to give information of greater interest to the surgeon who should naturally be familiar with the physiological principles concerning the various organs and tissues of the human body so that he will be enabled

(Continued on page 40)

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BOOK REVIEWS (Continued)

more readily to differentiate between normal and abnormal body functions.

A newer knowledge concerning the physiological actions of various body structures is developed; the surgeon is better enabled to apply his surgical technical knowledge, and likewise better enabled to determine whether or not certain operations are actually necessary. Many times through this increased knowledge of certain functions, the need for surgery is eliminated. The physiological explanation of a clinical fact is naturally always desirable.

Beginning with the circulatory system the author has presented the general physiological information desired by members of the surgical profession. He includes the circulatory disturbances in surgery, the development and treatment of shock, the effects of hemorrhage and burns on the circulation, descriptions of the reticulo-endothelial system and reticulo-endothelial cellular defense. Then the respiratory system, alimentary system, genito-urinary system, endocrine glands, cerebro-spinal and autonomic nervous systems are carefully discussed.

An interesting chapter is included on the physiology of the body fluids which is always of great interest to the surgeon. The acid-base balance and the physical and chemical factors involved in the acid-base balance are carefully described.

The author has given, in this unique book, the basic physiological processes which are involved in the practice of surgery, and he has presented them from the surgeon's viewpoint so that the reader may have a sound knowledge and adequate understanding of the applications of physiology to surgery.

COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION. Volume XXXIV, 1942. 999 pages; 176 illustrations. The W. B. Saunders Company, Philadelphia, 1943. Price $11.00.

As has been the case in the preparation of this volume during recent years, many of the articles are taken from the "proceedings of the staff meetings of the Mayo Clinic". The many articles appearing in this unusual volume cover

(*Continued on page* 42)

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Much consideration is given to the recent advances in chemotherapy. In addition to many of the newer chemotherapeutic agents, reports are given on the use of the sulfonamide group of drugs, promin, penicillin, gramicidin, tyrothricin, and tyrocidine. In addition to a review of many conditions in which these newer agents have been used, considerable space is devoted to their toxicity.

A number of interesting articles appear in this volume on nutritional disturbances, particularly in reference to avitaminoses with an evaluation of the vitamin requirements of man. Many interesting charts and illustrations increase the value of the book. It is most replete with articles on many subjects of interest to all physicians.

Many practitioners throughout the country will be looking forward to receiving this latest volume of collected papers of the Mayo Clinic, and no doubt will be interested in much of the subject matter to be found within these pages.

Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

SYNOPSIS OF TROPICAL MEDICINE, By Sir Philip Manson-Bahr, C.M.G., D.S.O., M.D., F.R.C.P., Senior Physician to the Hospital for Tropical Diseases, Royal Albert Dock and Tilbury Hospitals; Consulting Physician in Tropical Diseases to the Dreadnought Seamen's Hospital, London; Director, Division of Clinical Tropical Medicine, London School of Hygiene and Tropical Medicine; Consulting Physician to the Colonial Office and Crown Agents for the Colonies; Consultant in Tropical Medicine to the Admiralty and to the Royal Air Force; Lumlelan Lec-

(*Continued on page* 44)

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turer, Royal College of Physicians, 1941. With 5 plates. The Williams & Wilkins Company, Baltimore, 1943. Price $2.50.

An Introduction to Medical Mycology, By George M. Lewis, M.D., Member of the American Dermatological Association, Inc.; Fellow of the American College of Physicians, of the American Medical Association and of the New York Academy of Medicine; Member of the New York Dermatological Society and of the Manhattan Dermatological Society; Associate Attending Physician (Dermatology), The New York Hospital; Assistant Professor of Clinical Medicine (Dermatology), Cornell University Medical School; Attending Dermatologist to St. Clare's Hospital; Visiting Dermatologist to Welfare Hospital, etc., and Mary E. Hopper, M.S., Research Fellow in Medicine, Cornell University Medical School. The Year Book Publishers, Inc., 304 South Dearborn Street, Chicago, Illinois, 1943. Price $6.50.

Body Poise, By Walter Truslow, M.D., F.A.C.S., Consulting Orthopedic Surgeon to the following hospitals: Brooklyn, Long Island College, St. John's, Norwegian, Victory Memorial, Evangelical Deaconess, Kingston Avenue, St. Giles, Brooklyn, N. Y. and Pilgrim State, Brentwood, N.Y.; Former Lecturer on Orthopedic Surgery, Long Island Medical College and on Anatomy and Kinesiology, New York University, New York School of Physical Education and Y.M.C.A. Summer School, Silver Bay, N.Y. The Williams & Wilkins Company, Baltimore, 1943. Price $4.50.

Nervousness, Indigestion, and Pain, By Walter C. Alvarez, M.D., Professor of Medicine, University of Minnesota (Mayo Foundation); Consultant in the Division of Medicine, The Mayo Clinic, Rochester, Minnesota. Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, New York and London. Price $5.00.

Microscopic Technique in Biology and Medicine, By E. V. Cowdry, Professor of Anatomy, Washington University, and Direc-

(*Continued on page* 46)

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tor of Research, The Barnard Free Skin and Cancer Hospital. The Williams & Wilkins Company, Baltimore, 1943. Price $4.00.

LINCOLN-DOUGLAS. The Weather as Destiny. By William F. Petersen. Illustrations by Jean McConnell. Charles C. Thomas, Publisher, Springfield, Illinois, Baltimore, Maryland. 1943. Price $3.00.

FRACTURES AND DISLOCATIONS FOR PRACTITIONERS, By Edwin O. Geckeler, M.D., Fellow of the American College of Surgeons, Fellow of the American Academy of Orthopaedic Surgeons, Diplomate of the American Board of Orthopaedic Surgery. Third Edition. The Williams & Wilkins Company, Baltimore, 1943. Price $4.50.

THE MIND OF THE INJURED MAN, By Joseph L. Fetterman, M.A., M.D., Assistant Clinical Professor of Nervous Diseases, Western Reserve University School of Medicine, Cleveland, Ohio. 28 Illustrations. Industrial Medicine Book Company, Chicago, Illinois, 1943. Price $4.00.

NUMBER OF TYPHOID DEATHS REDUCED 50 PER CENT IN 2 YEARS

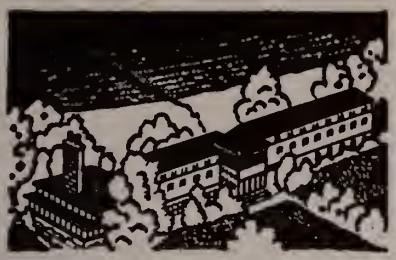
Reduction From 190 In 1940 To 95 In 1942 In Ninety-Three Large Cities Of U.S. Is Revealed In Annual Report

The death toll from typhoid in the ninety-three large cities of the United States for which data are available has been reduced by 50 per cent in two years (from 190 in 1940 to 95 in 1942), *The Journal of the American Medical Association* for August 21 announces in its thirty-first annual report of typhoid deaths. The death rate from typhoid per hundred thousand of population was 0.50 in 1940, 0.37 in 1941 and 0.25 in 1942.

In the seventy-eight cities for which data have been available since 1910, the report says, there occurred eighty-three deaths from typhoid, which is by far (less than one half that of 1940) the lowest of record. Deaths were recorded at the rate of 0.23 per hundred thousand of population.

Figures for the report were obtained from

(*Continued on page* 49)



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TYPHOID DEATHS (Continued)

local health officers, who were asked to record an estimate of population for 1942. "It is recognized," the report says, "that in areas of concentration of military and industrial activities a slight error will result, and some city and group rates may be a little too high and even too low. . . ." Paratyphoid was not included in the study.

"The number of cities with no typhoid death during the past two or more years has increased from twenty-five in 1941 to thirty-one in 1942," the report points out. "Fort Wayne continues to head the list with no death in eight years. South Bend has maintained its excellent record and has been without a death for seven years. Fall River, Lynn and New Bedford report no death in six years; Cambridge and Lowell, no death in five years. . . ."

Fifty of the ninety-three cities reported no typhoid deaths in 1942. One city with more than one million inhabitants (Detroit) records no death from typhoid. There remain four cities with rates of 2.0 or more, due in part to nonresident deaths. The number of cities with rates of less than 1.0 has increased by two (eighty-four in 1942, eighty-two in 1941).

The New England cities, with a population of 2,579,152, have the lowest group rate (0.12). Eleven of the fourteen cities reported no death from typhoid in 1942. There were three deaths in the group as a whole. "While in 1940 one half of the eighteen cities recording no deaths from typhoid during a two year period were to be found among the New England cities; and in 1941 one third (eight among twenty-five) were from these cities, in 1942 one fourth (eight among thirty-one) were found in this group," it is pointed out. "This in no manner sub-

(*Continued on page* 50)

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TYPHOID DEATHS (Continued)

tracts from the outstanding record of the New England cities but rather does it show the tendency for other cities to attain the high standards set by this group. . . ."

Eleven of the eighteen Middle Atlantic cities (population 13,129,185) report no death from typhoid in 1942. The Middle Atlantic cities have a group rate (0.15) much lower than the rates for 1941 (0.24), 1940 (0.27) and 1939 (0.37). In the group as a whole there were twenty deaths in 1942.

The rate (0.70) for the nine original South Atlantic cities (population 2,727,985) is lower than the rate of 1941 and that of 1940. In these cities there occurred nineteen deaths in 1942. Two cities are on the honor roll with no deaths from typhoid in 1942.

The eighteen East North Central cities (population 9,386,378) have lost first place, which rank they held in 1941. Eleven of the original cities in this group report no death from typhoid in 1942. The number of typhoid deaths decreased from nineteen to thirteen (the rate from 0.20 in 1941 to 0.14). Among the cities Fort Wayne records no typhoid death for eight years; South Bend none for seven years, Canton and Grand Rapids none for three years. "Detroit seems thus far to be the largest city to pass through a year without a typhoid death, either among residents or among non-residents," the report remarks.

The six cities in the East South Central group (population 1,286,747) again show a continuing decrease in the death rate (0.54 in 1942, 0.70 in 1941). There was but one death among residents, the total of seven deaths including six among nonresidents. Two cities report no deaths among either residents or nonresidents and appear on the honor roll.

The nine West North Central cities (population 2,716,484) show a decrease in the number of deaths from eight to five. The death rate declined from 0.29 in 1941 to 0.18 in 1942. Five cities record no death.

The eight cities of the West South Central group (population 2,048,692) report a decided reduction in the death rate (1.37 in 1941, 0.73 in 1942). The actual number of deaths de-

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TYPHOID DEATHS (Continued)

creased from twenty-eight to fifteen. Two cities record no death.

The cities in the Mountain and Pacific states (population 4,186,039) report a decrease from sixteen deaths in 1941 to thirteen in 1942. The rate has decreased from 0.38 to 0.31. Six of the original eleven cities report no death from typhoid in 1942.

"Of the ninety-five deaths in the ninety-three cities, thirty-two deaths (one-third) were among nonresidents," the report observes. "The health officers report no special outbreaks of typhoid. Improvement has been general throughout the country but especially in the West South Central cities, where the highest rates have been reported during the past many years. War travel does not appear to have contributed to the typhoid problem in our large cities."

Three cities, Charlotte, Gary and Sacramento, have in recent years been added to the original ninety-three cities, but figures for these cities are omitted in all group calculations for purposes of accurate comparison. Charlotte and Sacramento report no death in 1942, while Gary reports no death in 1941 or in 1942.

SAYS KENNEY CONCEPTS OF POLIOMYELITIS ARE INADEQUATE

The concepts of Elizabeth Kenny, the Australian nurse, of muscle involvement in infantile paralysis, "although the basis of an excellent type of treatment, are inadequate as a physiologic explanation of the dysfunction present," Arthur L. Watkins, M.D.; Mary A. B. Brazier, Ph.D., Boston, and Lieutenant Commander Robert S. Schwab, (MC) U.S.N.R., declare in *The Journal of the American Medical Association* for September 25.

"The importance of muscle 'spasm' as a symptom of acute poliomyelitis," the authors say, "has received emphasis since the Kenny concepts of the symptomatology and treatment of this disease have come into prominence. Muscular pain, tenderness and shortening have been recognized for many years as characteristic features of acute poliomyelitis. . . .

"In addition to muscular 'spasm,' Kenny has

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emphasized functional paralysis of the antagonistic muscles which she believes may not be truly affected by the disease but 'mentally alienated.' Kenny also describes another disorder of muscular function in poliomyelitis, 'incoordination,' which she ascribes to a 'condition arising in the central nervous system in which the regulation and direction of nerve impulses is upset so that the natural rhythmic and cooperative action of associated muscles is disturbed.'

"In order further to elucidate these concepts of muscle 'spasm,' 'mental alienation' and 'incoordination' we have studied the electrical discharges of muscles while at rest, during passive stretching and during voluntary contraction, both in the early and in the late stages of poliomyelitis. The observations have been compared with similar studies on normal controls and on patients having traumatic lesions (injuries) of peripheral nerves (those other than of the central nervous system). These investigations have yielded information on the disorder of muscle function in poliomyelitis. . . ."

The investigators say that the term "muscle spasm" is inadequate to describe the complexity of dysfunction which is revealed by tracings of the electrical discharges of muscles.

"The concept of 'mental alienation,'" the investigators declare, "does not contribute to the explanation of paresis in our cases, since objective signs of a disease process were always present in the paretic antagonists of muscles in 'spasm.' . . .

"Of the three concepts of Kenny, the only one upheld by our objective measurements is that of 'incoordination,' although the term is misleading. . . ."

A well-rounded program of medical supervision of the tuberculous patient has not reached completion until the patient has recovered sufficient work tolerance to permit him to take his place in economic life where he is again able to be independent in a carefully selected occupation in competition with the able-bodied. Edgar B. Porter. Amer. Rev. Tbr. April, 1942.

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SAYS BEST TO START TREATMENT FOR MALARIA AFTER INFECTION

This Is a Better Policy Than Prophylaxis If Adequate Laboratory Facilities Are Available, Navy Doctor Declares

"In general, the policy of treating men for malaria only after they become infected is better than prophylactic treatment if adequate laboratory facilities are available." Lieutenant Commander David R. Talbot (MC), U.S.N.R., declares in *The Journal of the American Medical Association* for September 25 in a discussion of new aspects of malaria. "Certainly this rule," he continues, "holds in peacetime or at any base where military urgency does not require that a maximum number of men be kept in the field to fight. However, in an area of active combat, especially where malaria is caused by P. falciparum (a type of malaria) is endemic (common), prophylactic antimalarial measures must be adopted."

This agrees with Circular Letter No. 153 from the Office of the Surgeon General of the Army concerning the drug treatment of malaria, which is reprinted in the same issue of *The Journal*. The letter advises that drug suppressive treatment is an emergency procedure.

Dr. Talbot says that prophylactic treatment may mask symptoms while the disease is insidiously doing damage to the infected man's blood forming organs, so that when the malarial infection does break out the body's natural defensive mechanisms are so impaired that a more serious type of disease than usual results.

In the introduction to his article Dr. Talbot explains that "On the return of millions of service men from tropical duty to civilian life at the end of the war it is going to become necessary for every physician to have a working knowledge of malaria and other tropical diseases. This knowledge must include certain new aspects of the nature of malaria and its treatment that have been brought out during this war. The fact that large groups of men have been under military control while being treated for malaria has made it possible to study this disease in an unusual way, by means of routine blood examinations, hospitalization and a more

(*Continued on page* 56)

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MALARIA (Continued)

thorough follow-up of patients than would be possible in civilian life. . . ."

The basis of his paper is material obtained while he was doing duty as a senior medical officer at an outlying military base where he had an opportunity to observe the results from two similar groups of men under identical conditions of exposure to malarial infection who were handled according to two different accepted methods of malaria control. The one, the Army group, took atabrine (0.15 Gm. twice daily) prophylactically on two days of each week, while the second, the Navy group, were being given treatment only as they showed symptoms or had blood smears positive for malaria. It was observed that while in the Army group the incidence of malaria had been quite low under a regimen of prophylactic treatment with atabrine, when the infection did occur in the Army it was much more severe and was slower to respond to treatment than the infection in the group that had not been receiving antimalarial prophylaxis.

Among the other recommendations made by Dr. Talbot are that in areas where malaria is common it should be a monthly routine to examine thick smears of blood from all military personnel. All persons with smears containing malarial parasites, even those without symptoms, should be treated vigorously to forestall attacks.

Treatment of malaria with both quinine and atabrine, when both are available, is more effective in preventing recurrences than prolonged treatment with one of them. Because of some individual idiosyncrasy, an occasional person will be found whose malarial infection does not respond to atabrine or, again, to quinine. In such cases the treatment will then have to be given with the single effective drug.

Of particular importance is his statement that "Malaria, like syphilis, may simulate different diseases of every part of the body, and the absence of chills and fever should not rule out its occurrence in people who are living or have sometime in the past lived in the tropics or other areas of endemic malaria."

ENGLISH MEDICAL OFFICER USES OWN BLOOD FOR TRANSFUSION ON BATTLEFIELD

The heroism of an English medical officer, Lieutenant C. G. Rob, the first British paratroop doctor to win the military cross, is described by the regular London, England, correspondent of *The Journal of the American Medical Association* in the September 11 issue.

The correspondent says that when the doctor dropped by parachute in Tunisa "he broke his leg. Nevertheless he carried on. When the blood transfusion supplies gave out he took a pint of his own blood for a patient. The citation states that he performed some one hundred and forty operations after being dropped by parachute, in many cases under enemy bombing."

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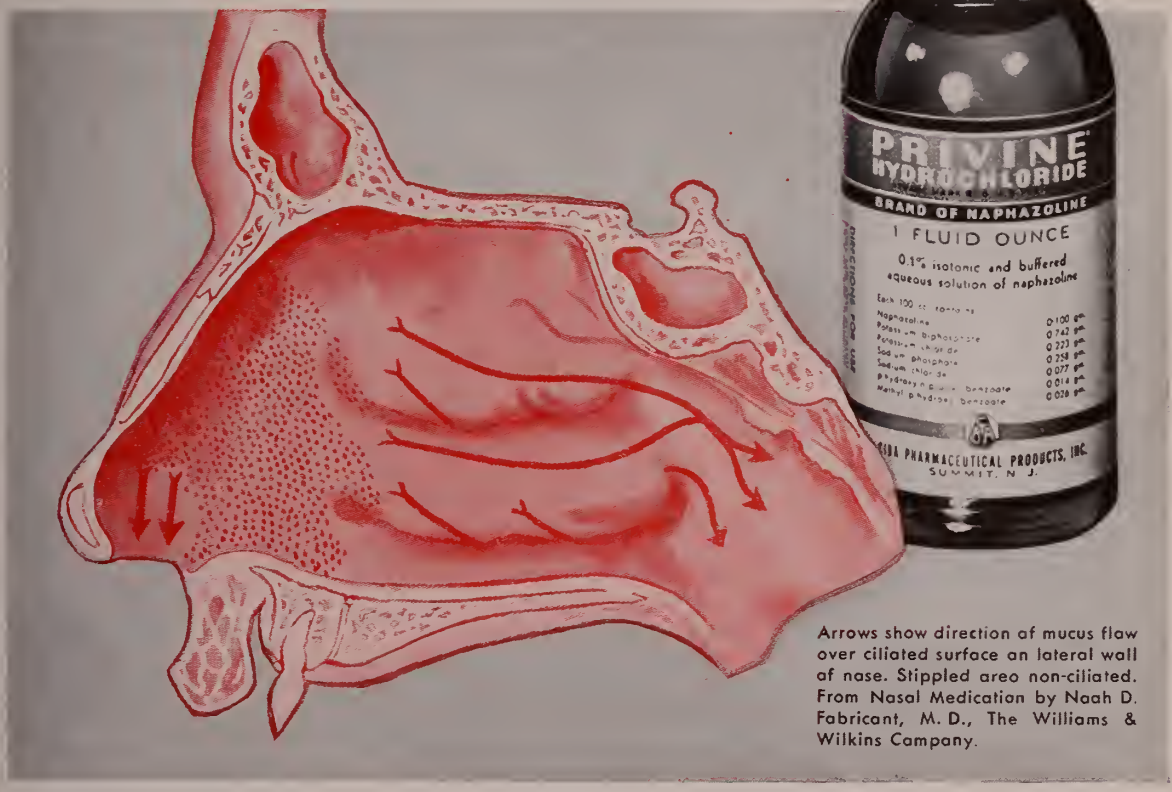
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The ILLINOIS Medical Journal

VOL. 84 NO. 5

November, 1943

In This Issue

Convulsions in Childhood

Tumor Diagnostic Services in Illinois

(See page 29 for Table of Contents)

OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY



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Squibb Stabilized Aqueous Solution Sulfathiazole Sodium (2.5%) with Desoxyephedrine Hydrochloride (0.125%)



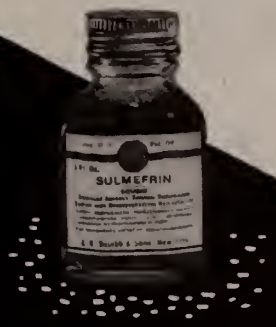
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RHINITIS
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LARYNGITIS

Advantages:

Remarkably stable
Practically non-irritating
Quickly relieves nasal congestion

Sulmefrin may be administered by spray or drops, 5 to 10 minims into each nostril, 2 to 4 times daily; or by tamponage, 20 minims on each pack, applied for 15 to 30 minutes once a day. . . . Sulmefrin is available in 1-ounce dropper package and 1-pint bottles. Pink-tinted solution.



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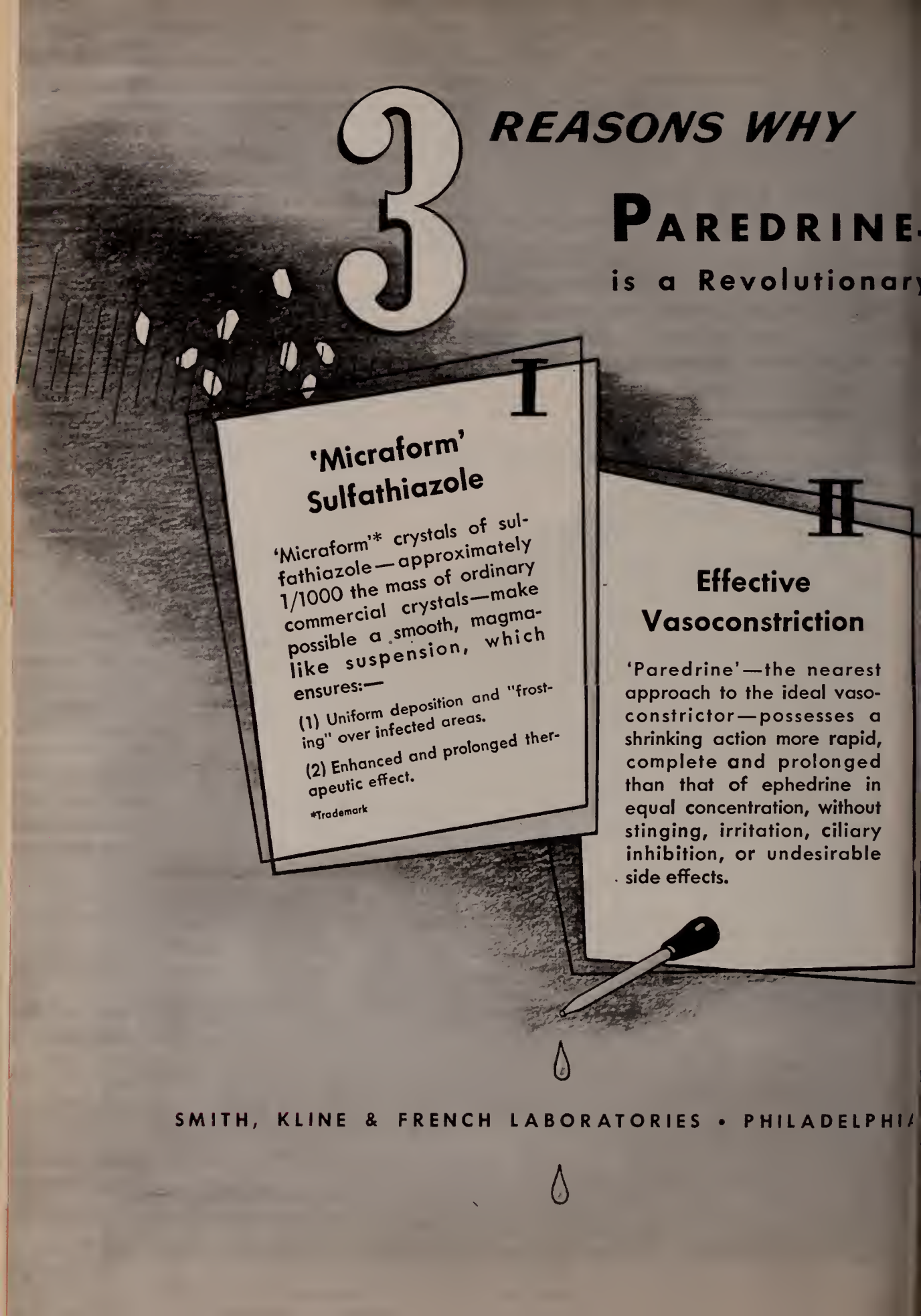
For drop instillation in treatment of chronic and acute conjunctivitis when caused by organisms sensitive to sulfathiazole. An aqueous solution containing sulfathiazole sodium 1%; *dl*-desoxyephedrine hydrochloride 0.1%; stabilized with sodium sulfite 0.8% and sodium borate 0.4%. Supplied in 1-oz. dropper packages and 1-pint bottles. Yellow-tinted solution.

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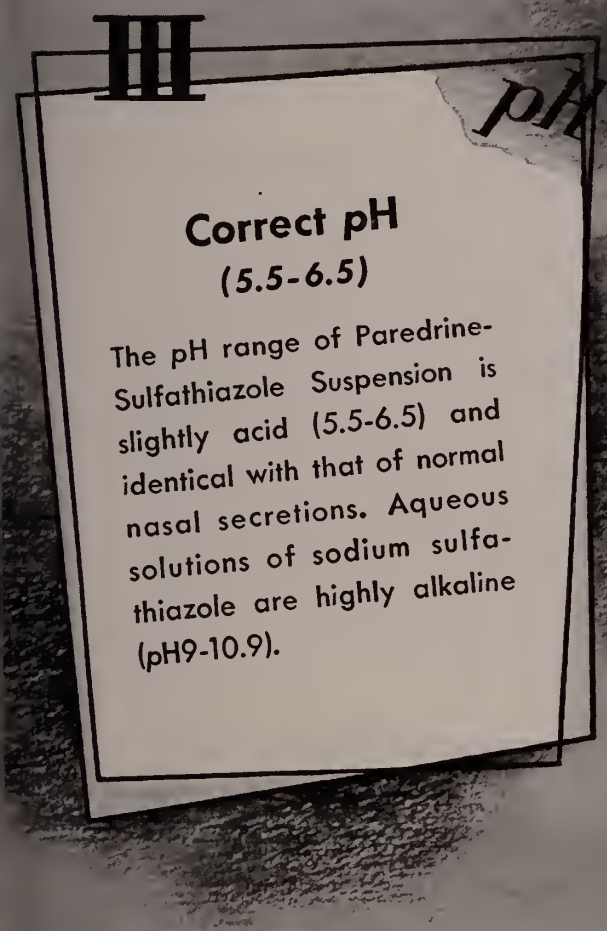
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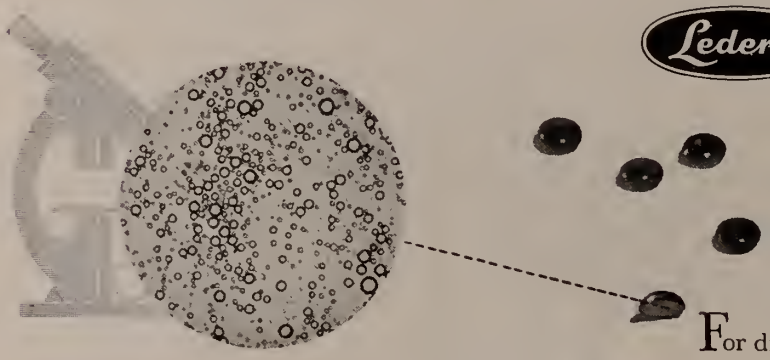
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*The need for pantothenates and pyridoxine in human nutrition has not been established.

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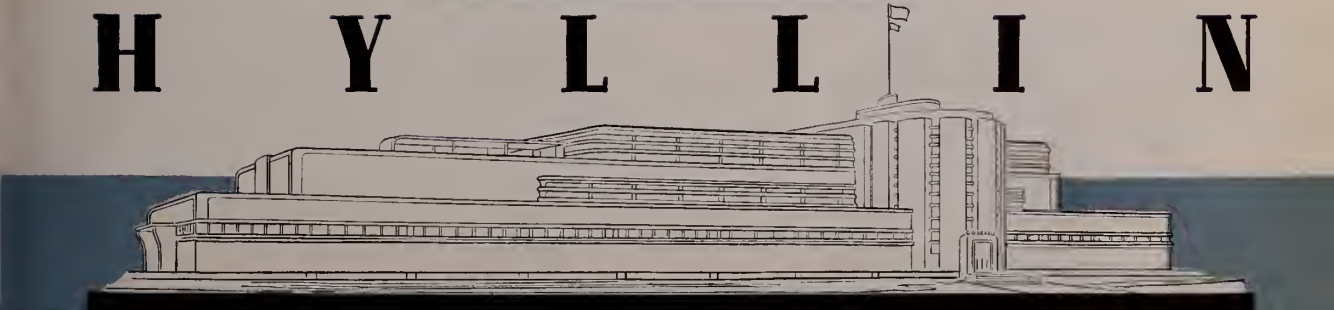
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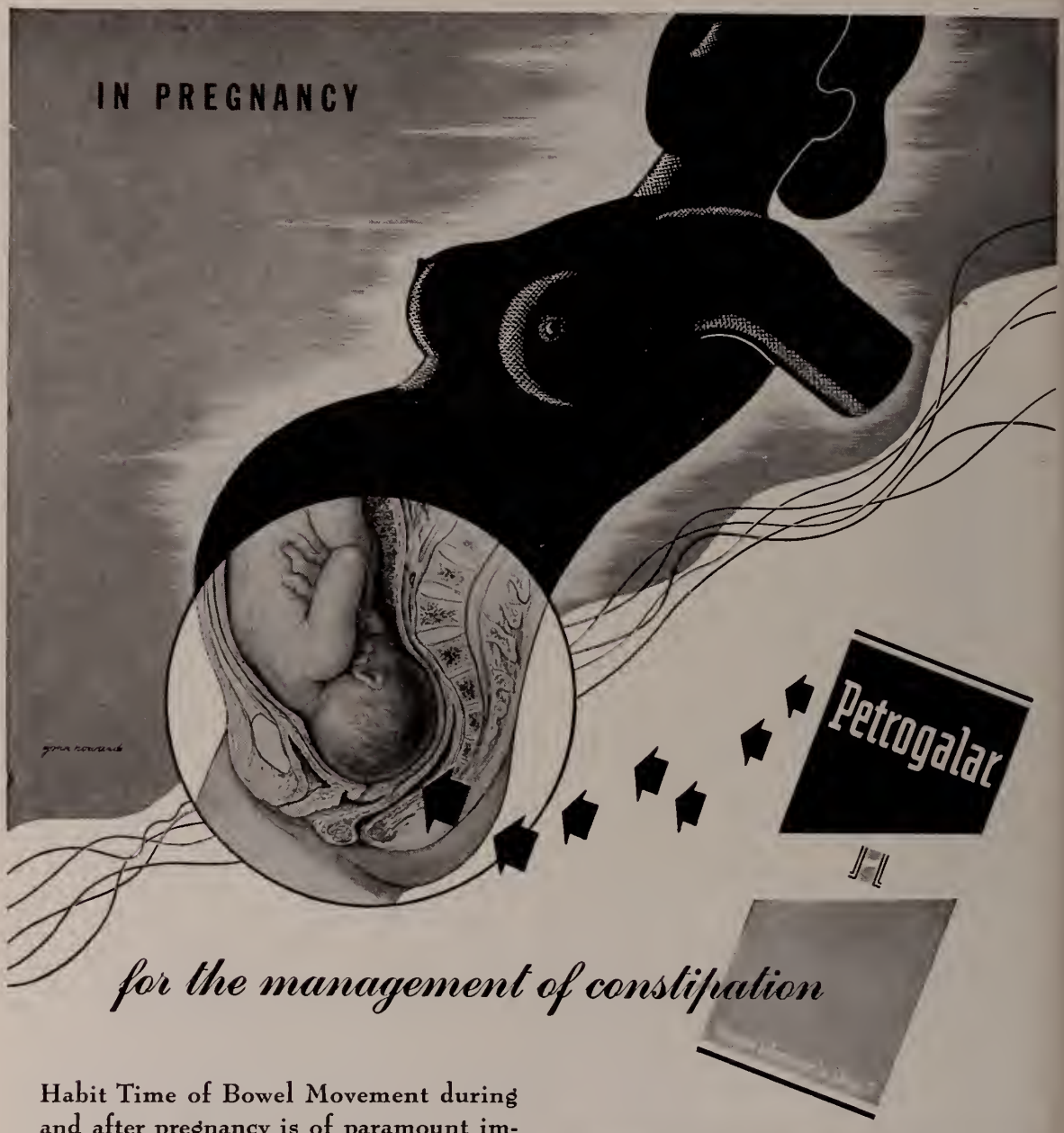
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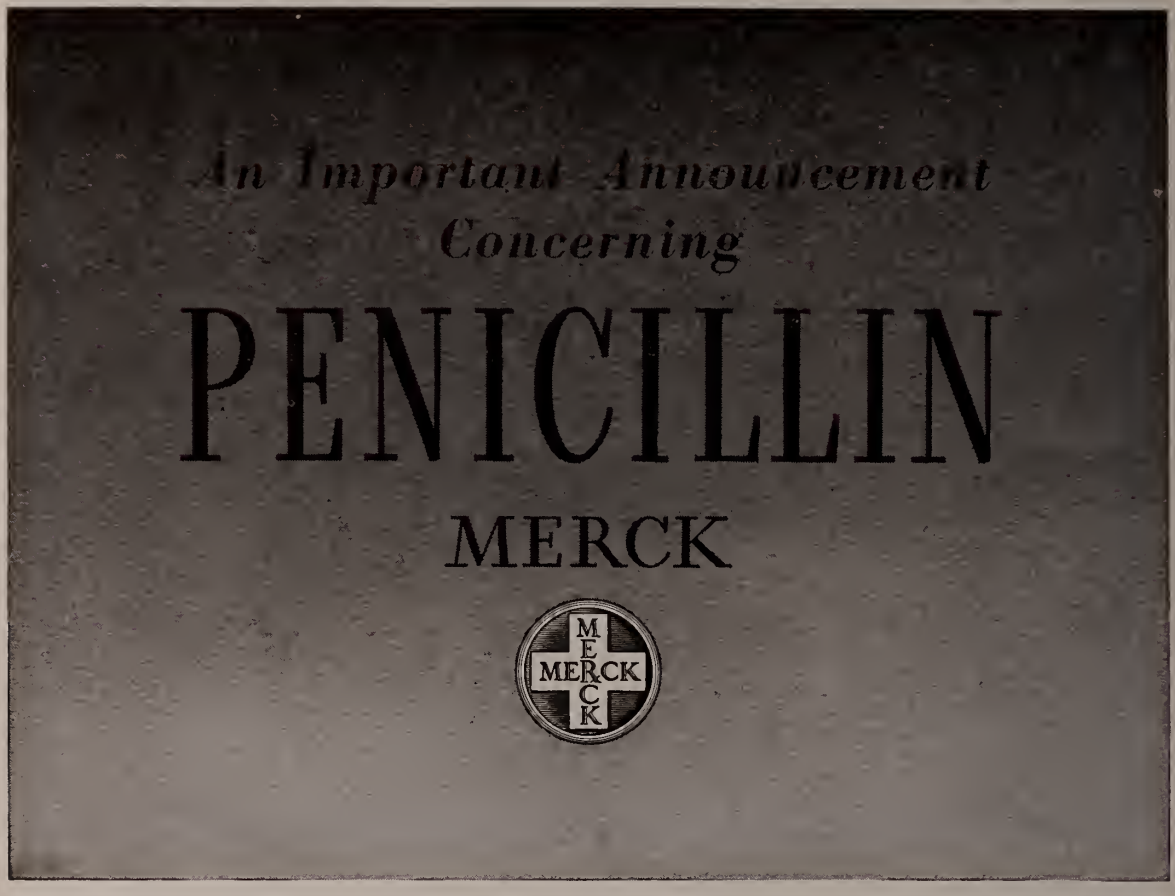
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THE discovery, production, and clinical evaluation of the new chemotherapeutic agent, Penicillin, constitute a signal advance in medicine's relentless warfare against disease.

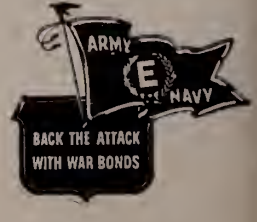
Penicillin has proved to be extremely effective in the treatment of infections produced by the hemolytic staphylococcus aureus, the pneumococcus, hemolytic streptococcus, and gonococcus. In general, Penicillin is not effective against gram-negative organisms, with the exception of the gonococcus and meningococcus. It has not been found effective in the treatment of subacute bacterial endocarditis.

In vitro studies indicate that Penicillin will prove to be effective against a variety of other organisms. However, clinical experience to date has been limited primarily to infections caused by the aforementioned organisms, in conformity with the predetermined objectives of the Committee on Chemotherapeutic and Other Agents of the National Research Council.

The production of Penicillin is a difficult and delicate microbiologic procedure. Because of the difficulties involved in producing even limited quantities of this substance, it has been necessary to exercise strict control of its distribution, in order that supplies might be available for essential investigation. The Committee on Medical Research of the Office of Scientific Research and Development therefore appointed the Chairman of the Committee on Chemotherapeutic and Other Agents of the National Research Council to supervise the distribution of all stocks available for clinical research. At the present time, the Chairman of the latter Committee is supervising allocations of Penicillin in accordance with Order No. M-338 of the War Production Board.

Intensive research begun in the Merck Research Laboratories in the autumn of 1940, and carried on continuously ever since, is devoted to the development of methods by which this remarkable substance may be produced in ever-increasing quantities. Every effort is being made to expand production further for the benefit of our Armed Forces and, as soon as adequate quantities can be made available, for our civilian medical needs.

★ *Copies of the recently published brochure,* Penicillin Merck—Its Action and Uses, *containing full color and halftone illustrations, are available on request.*



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A generous contributian taward the daily requirement.	
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November 1943
VOL. 84, NO. 5

The Illinois Medical Journal

Official Journal of the Illinois State Medical Society

EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls, Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry S. Gradle, Harry Culver, Walter Stevenson, Raymond W. McNealy.

Editorials

AN UNJUST CRITICISM

The journal of the American Medical Association under date of Saturday, October 9, 1943, published an editorial entitled "Council Standards and Medical Advertising" in which was told in some detail, the establishment of the Council on Pharmacy and Chemistry by the American Medical Association some thirty-five years ago. The article stated that "The Journal of the American Medical Association under the direction of the board of Trustees, limits its acceptance of advertising to products that have been accepted by the Council. Most of the State Medical Journals and several independent medical journals also restrict their acceptances of advertising similarly."

Reference was made in the editorial to the "throw-away" publications which are sent free to all physicians because their support comes from advertising which could not be accepted by journals of recognized scientific origin and merit. Then the following statement appeared in the editiorial: "The journals of two state medical societies, Illinois and New York, have been conspicuous almost from the first in their insistence on the profits to be derived from the publications of advertisements of unaccepted products."

Also in the editorial appeared the following statement: "The Illinois and New York journals continue to be vertiable directories of unestablished and unscientific therapy Can the physicians of Illinois and New York and the representatives of a few states who are urging a breakdown of the Council standards believe that the business managers of their periodicals are better equipped to judge what is good in materia medica and therapeutics than is the Council on Pharmacy and Chemistry?"

It is insinuated that the business managers of the Illinois and New York journals, as well as some others, are urging the governing bodies of their respective societies to depart from the standards of the Council, and that they might well give more consideration to their responsibility to scientific medicine.

We can speak only for the Illinois Medical Journal in commenting on this editorial, and we can give some facts to our readers to which we believe they are entitled, especially if they read the editorial in the Journal of the American Medical Association in which the above statements appeared.

1. The Illinois Medical Journal is published under supervision of the Council of the Illinois State Medical Society. Each year a highly capable Journal Committee is appointed and is given some specific instructions as to its functions, one of which is the acceptance or rejection of prospective advertisements.

2. For approximately three years this Journal has had an Editorial Board which likewise has given much consideration to all materials which have gone into the Illinois Medical Journal, and its policies have been discussed in detail at regular meetings.

3. At the time these new policies were adopted subject to the approval of the Council there were a number of advertisements appearing in the Journal which were discontinued. In all, some twelve or more advertisements have been eliminated during the past two years.

4. The Journal Committee, Editorial Board, and the Council have not approved the acceptance of any liquor advertisements although they have appeared in many other medical publications including some of those which are members of the Cooperative Medical Advertising Bureau.

5. During the past two years dozens of prospective advertisers who have desired in some instances, a full page or more in each issue of the Illinois Medical Journal have not been approved.

6. Several advertisements have appeared recently in journals which are members of the Cooperative Medical Advertising Bureau, which have been rejected by the Illinois Medical Journal.

7. The business manager of the Illinois Medical Journal has invariably done two things before signing a contract with a new advertiser in conformity with instructions given him when he assumed this position.

a. All companies desiring to advertise in the Illinois Medical Journal must submit the copy they desire to have published, and this is promptly referred first to an official of the Cooperative Medical Advertising Bureau of the American Medical Association who gives his impression as to the company and the product.

b. Then, if no objectionable information has been received, it is promptly sent to each

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Outside of editorial or allied views or statements that are the authoritative actions of the Illinois State Medical Society, the organization denies responsibility for opinions and statements published in the ILLINOIS MEDICAL JOURNAL. Views expressed by the various authors and views set forth in various departments in the JOURNAL represent the views of the writers.

State Society will pay no bills for legal services except those contracted by the Committee. Notify the Chairman at once. Do not employ attorneys.

Send advertising copy, cuts and all communications relating to advertising to ILLINOIS MEDICAL JOURNAL, 30 N. Michigan Avenue, Chicago.

Original articles and membership correspondence to Dr. Harold M. Camp, Monmouth, Ill.

Society proceedings and news items and changes in the mailing list to Managing Editor, 30 N. Michigan Ave., Chicago 2, Illinois.

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member of the Journal Committee who is, asked to give it serious consideration and submit individual opinions as to its acceptability.

It is not the desire of those responsible for for the publication of the Illinois Medical Journal to see how much revenue can be procured through advertising, and it would be possible if no provisions were made for a careful selection of prospective advertisers, to carry perhaps twice as many pages of advertising as is the case at the present time.

The Illinois State Medical Society, its Council and others interested in this Journal heartily approve the fine work which has been done by the Council on Pharmacy and Chemistry, of which group the Editor of the Journal of the American Medical Association is a member. We realize also that many products now on the market which have had their real value properly tested scientifically, have never been submitted to the Council for approval, yet their value as medicaments is not lessened through this lack of approval.

We have been told that some products are refused approval principally because the name given to the product by the manufacturer is objectionable to the Council. Until the name is changed to conform to the critical demands of the Council it remains unaccepted. This too, does not lessen the therapeutic value of the preparation.

Since December 7, 1941 the Illinois State Medical Society has been chiefly interested in the war, and has made every effort to do its part in the defense of our country, and to bring the war to a successful conclusion. Illinois has done its part in responding to the repeated calls for physicians to join the Armed Forces, and is still endeavoring to provide additional medical officers and give wartime medical care to essential workers and civilians at home. We have endeavored in the columns of the Illinois Medical Journal each month, to present to our readers, many of whom are with the Armed Forces, information which it is believed will be of greatest interest to all readers of the Journal.

We do not believe that the criticism given the Illinois Medical Journal in the editorial referred to above was either timely or justifiable, and this refers especially to the statement: "The Illinois Journal continues to be a veritable directory of unestablished and unscientific therapy." The policies adopted by this Journal have been approved by the House of Delegates of the Illinois State Medical Society. The Council which is responsible for its publications, will gladly welcome suggestions for improvement of the Journal and likewise constructive criticisms of its policies.

THE ROLE OF PLASMA IN MODERN WARFARE

Those who are familiar with the medical problems in connection with the present war are invariably stating that the health of the United States Army is better than that of any similar force anywhere and that the medical corps of the United States Army and Navy are superior to those of other armies. It is generally admitted that the low mortality from the many casualties in the present war is due to the use of plasma, the ability of the surgeons in service and the use of the sulfonamides. Major General Norman T. Kirk, Surgeon General of the U. S. Army, has stated that while in North Africa at the close of the campaign, General Eisenhower told him that without the services of the fine medical officers on duty throughout North Africa, the successful results would not have been possible.

Through the Ameican Red Cross millions of Americans are giving blood which is sent immediately to one of the selected processing laboratories where plasma is procured and prepared for shipment to any part of the world. Plasma, fortunately, can be given almost anywhere — on ships, in ambulances, at first aid stations, or even in the field where the injured man has fallen. Thus plasma is usually given when indicated within a short time after the injury has been received. This has unquestionably been a very important factor in the statistical reports which are so greatly improved over those of the last war.

To the present time the mobile units of the American Red Cross which are equipped to procure blood from donors have only made the larger cities. There are many millions of peo-

ple throughout the country willing to make their donations regularly but have not as yet had the opportunity. In the larger cities where permanent quarters for making blood donations are maintained, provisions are available to give a more careful consideration to donors, for many times people who should not donate the usual 500 cc of blood on account of anemia or some other illness, are calling at these headquarters and insisting that they be accepted as donors.

Consideration should be given to the donor, and it is stated that many willing to give blood as a patriotic duty are not accepted after the necessary examinations have been made. It is generally known that the giving of 500 cc of blood on the part of the average healthy individual will do no harm, and that within a relatively short time the hematopoetic system will completely restore the blood count and hemoglobin to normal. This is especially true if the donor pays proper attention to diet, rest, and other important factors. Reports have been broadcast showing that some healthy individuals have donated blood several times and appear at regular intervals to make further donations.

With the ever increasing number of men in the field it is quite obvious to all that more blood will be needed each year the war continues. Eventually some plan should be developed whereby the rural areas and small town residents may likewise do their part for their country and its fighting men by donating blood.

One of the important factors in processing blood is that it must be received at the processing laboratory within 24 hours from the time it is taken from the donor. It must be transported under proper conditions, and there are but few parts of this country with our present transportation facilities where these requirements can not be met properly.

The American Red Cross which has been given the responsibility of procuring blood from donors and properly transporting it to the processing laboratories, is doing many things in this time of war which make this organization worthy of all consideration. It is therefore very important that every loyal American respond freely each time the call comes for donations to the Red Cross, and aid materially in making it possible that these many services can be continued until the successful end of this world wide conflict is reached.

CHICAGO OFFERS OPPORTUNITIES FOR POST-GRADUATE STUDY

The Post-Graduate and Sicentific Service Committees of the Illinois State Medical Society are pleased to announce the following information for doctors of the Society who may be in Chicago and wish to spend the time in study.

1—The University of Chicago — Department of Obstetrics and Gynecology, The Chicago Lying-In Hospital, 5841 Maryland Avenue —

"Obstetric and gynecologic lectures are given from 8:00 to 9:00 A. M. from Monday through Saturday. Obstetric lectures are also given from 12:00 noon to 1:00 P.M. on Wednesday, and a staff conference is also held at 4:30 P. M. on Wednesday.

"Clinics from 10:00 to 12:00 and from 2:00 to 4:00 are held every day except Saturday afternoon. There is a contraceptive clinic Wednesday afternoon, lower genital tract infections clinic on Thursday morning, endocrine clinic Thursday afternoon and toxemia clinic Friday morning.

"Doctors are always welcome. They are asked to bring some identification proving that they are doctors of medicine."

2—The Children's Memorial Hospital, 707 Fullerton Avenue, Chicago —

"Clinicopathological conference each Wednesday noon from 12:00 to 1:00 and on Monday mornings courses in pediatrics to senior Northwestern students from 8:30 to 11:30. Visiting doctors would be welcome at any of these meetings."

3—The Presbyterian Hospital of the City of Chicago, 1753 West Congress St.

"The following five clinics or conferences may be of very real value to the members:

Pathology Conference — Wednesday — 2:00 to 3:00 P. M. — No. Amph.

Cardiac Clinic — Tuesday and Friday — 9:00 to 11:00 A. M. — 4th Floor Rawson Bldg.

Metabolism Clinic — W. O. Thompson — Monday and Thursday — 9:00 to 11:00 3rd Floor, Rawson Building

Electrocardiogram Lectures — I. Treiger — 8:00 to 9:00 — 4th Floor, Rawson Building

Lectures on Fractures — Kellogg Speed — Friday — 9:00 to 10:00 — No. Amph. (Autumn Quarter Only).

Lectures in Surgical Anatomy — A. Verbruggen — Thursday — 10:00 to 12:00 —, North Amph. (Autumn quarter only)

4—University of Illinois College of Medicine, 1853 W. Polk Street, Chicago —

In Anesthesia the following is made available:

1. Twelve lectures are given to the third year medical students, and these are tentatively scheduled to start Thursday, January 6, 1944, and to continue for twelve Thursdays. They will probably be held from eight till nine A. M. in room 106.
2. We hold an Anesthesia Staff Meeting nearly every Wednesday night from seven P. M. until about 9 P. M. These meetings are held just now in room 173 in the hospital. Interesting cases are discussed. Any outsiders who wish to attend one of these staff meetings should communicate with this department by telephone beforhand, first because the meetings are sometimes cancelled, and second we cannot accommodate many unexpected guests.

In the Department of Dermatology, we have clinical demonstrations to sections of students each afternoon, except Saturday, from 2:00 until 4:00 P.M. and we have a clinical presentation to the entire senior class each Thursday afternoon from 4:00 until 5:00 P.M. In addition, there is a series of didactic lectures on Dermatology given to the junior class from 4:00 until 5:00 P.M. each Monday.

There is always room for additional people and we do welcome them, although, these are the regular classes designed for undergraduates but I'm sure time and space can and will be made available for this purpose.

The Department of Laryngology, Rhinology, and Otology offers the following:

Senior Clinic in Otolaryngology — Mondays from 4:00 to 5:00 P.M., throughout the year.

Departmental Seminar — Wednesday from 4:00 to 5:00 P.M., October through May.

Junior lecture in Otolaryngology — Wednesdays from 8:00 to 9:00 A.M., throughout the year.

The Department of Medicine presents clinics and lecture courses which members of the Society may attend:

Tuesday — 8:00 to 9:00 — Diagnostic Clinic, Dr. Fred Sloan, Room 106 Medical and Dental College Building

Friday — 5:00 to 6:00 — Diagnostic Clinic, Dr. Jacob Meyer, Medical Amphitheater, Cook County Hospital

Monday — 8:00 to 9:00 — Gastrointestinal Diseases, Dr. Sidney A. Portis, Room 106 M&DCL Bldg.

Friday — 1:00 to 2:00 — Heart Disease, Dr. Frank B. Kelly 106 M&DCL Bldg.

Thursday — 5:00 to 6:00 — Tropical Medicine, Dr. Carroll L. Birch, Room 106 M&DCL Bldg.

The only teaching activities in the Department of Neurology and Neurological Surgery open to the general medical profession are the operations. These occur almost daily in the mornings at the Illinois Neuropsychiatric Institute, 912 S. Wood Street, Chicago, and prospective spectators may obtain details from day to day by telephoning Monroe 3900 and asking for extention 529.

It has been the policy of the Obstetrical and Gynecological Deparment to cooperate in every way possible with graduate education for the physicians of Illinois. To this end we have devised a two weeks course which will include lectures, ward walks, out-patient clinical demonstrations, and instruction in both obstetrical and gynecological operative work. Through application to the State Health Department the expenses of a student for such instruction may be paid from Federal funds allocated to this purpose.

Lectures in Obstetrical and Gynecological Department:

Monday Morning 8 to 10 — Gynecology, Cook County Hospital — 8th Floor

Wednesday Morning 8 to 9 — Obstetrics, Research Hospital — Room 106

2 Week Course in Obstetrics and Gynecology, Research and Educational Hospitals

The Orthopaedic Department submits the following information:

1. Lecture given to the Junior Class on Saturday morning from 8 to 9 o'clock, Room 106 — (Dr. Chandler)

2. Clinical Conference from 9 to 10:30 o'clock on Saturday morning, B-1, Orthopaedic Building.
3. Grand Rounds (ward visits) on Tuesday morning from 8 to 10 o'clock
4. Surgery from 8 to 12 o'clock on Thursday morning (Dr. Chandler)

We shall be very glad to have any visitors of the Profession join with us at these periods.

In the Department of Pathology the following clinics are open to all members of the Chicago and Illinois State Medical Societies:

Clinical-Pathologic Conference — Monday, Thursday and Friday, 12:00 to 1:00 P.M.

Surgical-Pathologic Conference — Tuesday, 12:00 to 1:00 P.M.

Neuro-Pathologic Conference — Monday, 1:00 to 2:00 P.M.

All of these conferences are held in the new Autopsy Amphitheatre, Room No. 477, 808 South Wood Street.

The Department of Pediatrics lists the following clinics and lecture courses:

Clinics on Ward — 9 to 12 daily, except Saturday — Municipal Contagious Hospital, 3026 S. California Ave. — Dr. Ralph Spaeth, Instructor

Clinic — 9 to 10 Monday — Room 735, Cook County Children's Hospital — Dr. L. E. Bower

Clinic — 9 to 10 Tuesday, Ward 51, Cook County Hospital "Management of the Newborn" — Doctor A. H. Parmelee

Clinics on Ward (Pediatrics, 2-East) — Research and Educational Hospital — each afternoon, except Saturday, from 2 to 4 o'clock

Seminars — 2 to 4 o'clock — Monday, Wednesday and Friday — Room 367 New Dental Building

Clinics — 10 to 12 o'clock Saturday — Doctor Grulee and Pediatric Staff, Presbyterian Hospital, North Amphitheatre, 6th Floor (this quarter)

University of Illinois, Room 106 (next quarter) Doctors Hess and Poncher

It has been suggested by the Department of Psychiatry that physicians interested in clinics, lecture courses, or seminars in psychiatry may apply to the Head of this Department for permission to attend such classes and conferences. The under-graduate class program varies a good deal from quarter to quarter. The seminars are offered during the Fall, Winter, and Spring quarters on Wednesdays from 3:00 to 5:00 P.M. and Saturdays from 10:00 to 12:00 noon.

The Department of Radiology invites the Society and its members to attend inter-departmental meetings held on the first and third Fridays of each month at which time unusual cases are presented for discussion from the roentgenological viewpoint.

The Department of Surgery extends its invitation to physicians of the State to attend the surgical conferences held Tuesday, 12 to 1; and the hospital conference on Friday, 12 to 1:00 P.M. The refresher course might be of some interest also, since a discussion of surgical problems is the subject of conversation. We are always glad to have visitors in the operating rooms, which are in use mornings as well as afternoons except Saturday afternoon and Sunday.

"QUO VADIS"

"Whither are you going" cooing, prattling little chap? Gleefully you clap your baby hands as you push your home-made one mast sailboat across the tub of water — your own private ocean. Out it goes, back it comes at the pull of your string. Master of your own destiny. Life is simple, is it not?

"Whither are you going" my little man, with your school books dangling from a strap, and your top swinging in the palm of your free hand? Still care free, are you not, a creature of instinct, unconsciously following a plan, apart from the world and yet a part of it. Still sailing your toy ship, but already others are pulling and guiding its Course.

"Whither are you going" you stalwart youth in full possession of all your physical and mental faculties? Does that tilt of your chin and your furrowed brow bespeak minor battles — some lost, some won? There is confusion in your face, vexation too, but purpose and determination in your eye! March on, my man, you are in the army now, the army of life. May God speed you and guide you, and guidance you need like never before. Find your path towards happiness!

Be tolerant and patient for a moment, oh youth, and harken to this homely message. Man is born with an insatiable desire to avoid pain, misery, suffering and want, and to achieve perfect happiness.

Even though through the years he senses that this is impossible, on and on he goes in his mad futile search for this Will o' the Wisp. The paths toward Peace are divergent.

Some follow the highways that lead to gold, to glory, to conquest, and some few tread the narrow trail of service, service to their God, service to their fellow man.

All roads if traveled doggedly, tenaciously and with forthrightness, converge to a common objective, ultimate peace and contentment. Which will you choose? Now, oh youth, is the appointed time for your decision!

"Whither are you going" man of maturity? Your jaw has lost its aggressive contour, your brow is wrinkled with care, the natural results of your battle with life. You sail your ship with difficulty now, for the ocean is no longer *your* ocean, but teems with craft — some friendly — others continuously crossing and recrossing your bow, harassing and endangering you at every turn. Possibly you should have taken a different, a wider track, bipassing this seething maelstrom, and sailing your ship on some smooth distant water in peace, and solitude? Does that look in your eye bespeak despair? Have you selected the wrong path towards happiness?

Ah, man of maturity. Again give heed to the voice of experience.

Sail on, sail on your ship of life, with grim determination! Unfurl your canvass, sweat you and labor! Surge forward and drive your ship into that vast armada. They will reach the shore and so must you. Let one important principle guide you — Sail by compass, but let your guiding beacons be Friendship, Fair Play, Justice and a Helping Hand to your neighbor in distress.

"Whither are you going" senile, toothless, decrepit old man? Too late, too late to ask that question now! Your ship has reached its harbor — Your life's work is done. Your face is lined with care. Your eyes are dimmed, but ah — they retain the faded smile that beamed from them as you pulled your home-made one master on a string.

So your life *was* worthwhile? And the light in your eyes is the projection of the memories of acts of kindness, of helpfulness to your neighbor? Well done, old Skipper! Rouse yourself to a final effort: Back on your ship, twine those gnarled old hands once more around your rudder and with tilted chin and a steadfast eye sail your ship courageously into the calm and peaceful harbor of eternity.

Robert S. Berghoff

AMERICAN MEDICAL ASSOCIATION COUNCIL ON MEDICAL SERVICE AND PUBLIC RELATIONS

The Council has authorized the publication of the following statement.

J. W. Holloway, Jr., Acting Secretary

A STATEMENT OF GENERAL POLICIES

Pursuant to carrying out the duties imposed on it by the House of Delegates, the Council has adopted the following general policies:

1. The Council on Medical Service and Public Relations recognizes the desirability of widespread distribution of the benefits of medical science; it encourages evolution in the methods of administering medical care, subject to the basic principles necessary to the maintenance of scientific standards and the quality of the service rendered.

It is not in the public interest that the removal of economic barriers to medical science should be utilized as a subterfuge to overturn the whole order of medical practice. Removal of economic barriers should be an object in itself.

It is in the public interest that the standards of medical education be constantly raised, that medical research be constantly increased and that graduate and post graduate medical education be energetically developed. Curative medicine, preventive medicine, public health medicine, research medicine, and medical education, all are indispensable factors in promoting the health, comfort and happiness of the nation.

2. The Council through its executive committee and secretary shall analyze proposed legislation affecting medical service. Its officers are instructed to provide advice to the various state medical organizations as well as to legislative committees concerning the effects of the proposed

legislation. It shall likewise be the duty of its officers to offer constructive suggestions to bureaus and legislative committees on the subject of medical service.

3. The Council approves the principle of voluntary hospital insurance programs but disapproves the inclusion of medical services in those contracts for the reasons adopted by the House of Delegates at the 1943 meeting.

4. The Council approves voluntary prepayment medical service under the control of state and county medical societies in accordance with the principles adopted by the House of Delegates in 1938. The medical profession has always been very much opposed to compulsory health insurance because (1) it does not reach the unemployed class, (2) it results in a bureaucratic control of medicine, and interposes a third party between the physician and the patient, (3) it results in mass medicine which is neither art nor science, (4) it is inordinately expensive, and (5) regulations, red tape and interference render good medical care impossible. Propaganda to the contrary notwithstanding, organized medicine in general, and the American Medical Association in particular have never opposed group medicine, prepayment or non-prepayment, as such. The American Medical Association and the medical profession as a whole have opposed any scheme which on the face of it renders good medical care impossible. That group medicine has not been opposed as such is evidenced by the fact that there are many groups operating in the United States which have the approval of the medical profession, and members of these groups are and have been officials in the national and state medical organizations. That group medicine is the Utopia for the whole population, however, is not probable. It may be and possibly is the answer for certain communities and certain industrial groups if the medical groups are so organized and operated as to deliver good medical care.

5. The Council believes that many emergency measures now in force should cease following the end of hostilities.

6. The Council believes that the medical profession should attempt to establish the most cordial relationships possible with allied professions.

7. There is no official affiliation between the American Medical Association and the National Physicians Committee. However, since it is the purpose of the National Physicians Committee to enlighten the public concerning contributions which American medicine has made and is making in behalf of the individual and the nation as a whole, it is the opinion of the Council that the medical profession may well support the activities of the National Physicians Committee and other organizations of like aims.

8. American medicine and this Council owe a responsibility to our colleagues who are making personal sacrifices to answer the call of the armed forces. Therefore, the Council expresses the desire to cooperate with the medical committee on post-war planning in order to assist our colleagues in reestablishing themselves in the practice of medicine, and in the preservation of the American system of medicine.

DIGESTIVE DISORDERS IN COMBAT AREAS

From experience with 200 patients admitted to a large hospital in the South Pacific because of "dyspepsia," Captain Alexander Rush, Medical Corps, Fifty-Second Evacuation Hospital, reports in *The Journal of the American Medical Association* for October 23 that "from a medical point of view the selectee who on the basis of his army general classification test gives indication of being a poor risk has been so proved while under the stress and strain of field conditions in the combat area." Fifty-three per cent of the patients were found to have functional disturbances of the digestive tract. No organic basis for their distress could be demonstrated. The greater number of these patients were in grades IV and V (slow and very slow learners) in the army general classification test. This bears out the impression that digestive disturbances of the functional type are seldom seen among bright, alert, well integrated persons, Captain Rush says.

Agar-agar, formerly obtained from Japanese and Chinese seaweed and used in the artificial cultivation of bacteria, is now a scarce material; the U. S. Bureau of Fisheries is searching for American agar-producing seaweeds. — Minnesota Medicine.

Correspondence

ANNOUNCE POST-GRADUATE COURSE IN INDUSTRIAL MEDICINE

A post-graduate course in industrial medicine and hygiene, presented under the auspices of the Committees on Industrial Health of the Illinois State Medical Society and the Chicago Medical Society and directed by the University of Illinois College of Medicine and the Division of Industrial Hygiene, Illinois State Department of Public Health, will be held in Chicago beginning January 4, 1944, and continuing for twelve weeks, one lecture being held each week. The complete program will be printed in the Industrial Health Section of the Illinois Medical Journal for December.

WARTIME IMMUNIZATIONS URGED BY STATE DEPARTMENT OF PUBLIC HEALTH

Whooping Cough. — Although the State's case reports of whooping cough from January through September this year have been about 35 per cent below the reported 1942 incidence for the comparable period, the fatality rate among 4,754 cases of whooping cough reported in Illinois during the first seven months of 1943 was almost 14 per 1,000, as against 8 per 1,000 among the State's 7,252 cases reported in those months last year.

It is advisable to begin the series of immunizing injections as early as possible after the age of six months. The material recommended for this immunization is pertussis vaccine prepared by the Kendrick and Eldering method, or by the Sauer method. Approved pertussis vaccine is available to Illinois physicians from the State Department of Public Health. As a rule it is best administered in three subcutaneous injections into the arms, given at intervals of three or four weeks.

Diphtheria. — Illinois case reports of diphtheria in the first nine months of 1943 have been about 21 per cent lower than they were in the like period of 1942, but from January through July the number of reported deaths ascribed to diphtheria in the State has gone up to 55 this year, as compared with 34 last year.

Immunization against this disease may be accomplished at any time after six months of age, and preferably before the age of one year. The toxoid is available to Illinois physicians from the State Department of Public Health. The Department does not at present recommend as a routine practice the "combined immunization" against whooping cough and diphtheria. Since unimmunized children under the age of ten years are usually susceptible to diphtheria, it is not necessary as a general thing to give them the Schick test (for susceptibility) before the course of immunizing injections against diphtheria. The preferred immunization methods for these young children involve either two or three subcutaneous injections of alum-precipitated toxoid, or three subcutaneous injections of fluid toxoid. When young children first enter school, they should have an additional fortifying injection of either fluid or alum-precipitated toxoid.

The advance Schick test, which shows in five or six days' time whether or not the person needs diphtheria immunization, is advisable for persons beyond the age of ten. The recommended immunization method for these older persons in-

volves three subcutaneous injections of fluid toxoid at monthly intervals.

Six months after any course of immunizing injections against diphtheria is given, the effect of the immunization should be checked by a Schick test. Persons who are found to be still susceptible to diphtheria at this time should receive another full course of immunizing injections.

Smallpox. — The last reported smallpox death on record in Illinois occurred in 1938, when the State had 965 case reports of this disease. The reported annual prevalence of smallpox in the State has been steadily reduced since then, but remains far short of the goal. In a number of eastern states there is year after year no smallpox reported at all. Yet Illinois had 46 cases reported in the first nine months of 1943, and 55 in the comparable period last year.

The first smallpox vaccination in a person's life should be performed before the age of one year. It may be done at the time of the administration of the final injection of diphtheria toxoid, and repeat-vaccinations for smallpox may be given at five-year intervals. The vaccine is available to Illinois physicians from the State Department of Public Health. The results of each smallpox vaccination should be determined by the physician two weeks after the vaccination is performed.

Typhoid Fever. — It is greatly to the credit of the medical and public health professions in Illinois that the cases and deaths reported of typhoid fever in the State have decreased steadily since 1939 in spite of war and floods. During the first seven months of 1942 there were 86 typhoid fever cases and 11 deaths reported in the State, and in the comparable 1943 period these totals were reduced to 76, and 7, respectively.

To maintain and improve this record it is recommended that travelers, persons living in flood areas or in congested war areas of uncertain sanitary status, and other persons who may be exposed to the typhoid fever hazard, should receive three subcutaneous injections of typhoid vaccine, a week apart. Single injections may be given annually thereafter to keep up the immunity. Typhoid fever vaccine is also available to Illinois physicians from the State Department of Public Health.

NAVY DOCTORS REMOVE LIVE SHELL FROM HIP OF WOUNDED ENLISTED MAN

(The following story was written by Technical Sergenat Jim Lucas of 2531 East 14th Place, Tulsa, Oklahoma, a Marine Corps Combat Correspondent.)

A South Pacific Marine Base — (Delayed) — Twenty-three-year-old Allen L. Gordon of Rock Island, Illinois, knew he was a human bomb.

Standing at his post aboard an American warship in the South Pacific, he had been struck below the left chest by a 20 millimeter antiaircraft shell which pierced his intestines and lodged in his left hip.

By freakish chance, the shell had not exploded.

When Gordon, a Fire Controlman, Third Class, was gingerly carried ashore at this island outpost on November 22, 1942, he could still grin at the corpsmen who served as his stretcher bearers.

Thus began one of the strangest stories of war surgery in this area, which culminated on December 2, 1942, when two Navy doctors, working behind steel plate, operated on an American sailor who might explode at any moment and removed the shell in his hip.

Although infection later set in, Gordon was strong enough eventually to return to the United States, where treatment continues.

Gordon's experience is not typical, yet it vividly underlines the safeguards thrown up to protect the lives of Marines and sailors in the war of the Pacific by the Navy's Mobile Hospital units.

When Gordon was brought ashore, after an emergency operation aboard a battleship to sew up his intestinal tract, the Navy's hospital at this island outpost was still under construction; had not yet received its first patients.

Under direction of Lieutenant Commander Harold W. Jacox, 4800 Friendship Ave., Pittsburgh, Pennsylvania, formerly on the staff of the Western Pennsylvania Hospital there, several days were spent locating the "dud" by x-ray. Lieutenant Commander Jacox and his corpsmen worked under great handicaps, because their equipment had not been set up. Using small, portable x-ray machines — "and working with the greatest of care" — they made plates while Gordon lay on his hospital cot.

Once the shell was located, steel plate was prepared and the operation was performed in a mat-

ter of a few minutes by Lieutenant Commander Jesse B. Griffith and Lieutenant William C. Wycoff, both from the Western Pennsylvania Hospital staff in Pittsburgh.

OFFICE OF THE LEGISLATIVE COMMITTEE

Dear Doctor

If the socialization of American Medicine which would result through the passage of the Murray-Wagner-Dingell Social Security bill is to be avoided, it is of the greatest importance, we believe, that not only the medical profession, but their patients as well, be made familiar with certain aspects of the bill.

Any literature for distribution to the average individual must of necessity be clear, concise and emphatic, otherwise it will either be thrown aside, or will not be understood. It is difficult to give even the high spots of such a program and still be brief, but we believe that a recent editorial in The Indianapolis Star, several reprints of which were sent to you, does an excellent job of summarizing for the layman, the bad features of the Bill. We urge you to see that these reprints reach your patients, and we will be glad to furnish as many additional copies as you may request. Just drop a penny post-card to this committee at 30 North Michigan Avenue, Chicago 2, Illinois, giving your name, address, and the number of copies you desire to distribute.

One other suggestion; the National Physician's Committee for the Extension of Medical Service has made similar arrangements for the distribution of its excellent 8 page folder entitled "$3,048,000,000.00 of Political Medicine yearly in the United States." A card to that committee at 55 East Washington Street, Chicago 2, Illinois, will bring you as many copies of that folder as you can use.

Time is short! This bill has not yet been set for hearing, but there is an excellent possibility that it will receive the attention of Congress before the end of the year.

Very truly yours,
John W. Neal
Executive Secretary
Legislative Committee

HODGKIN'S DISEASE IN DERMATOLOGIC AND GENERAL PRACTICE

The lymphoblastomas are tumors involving the hemopoietic lymphoid, and reticular systems.

This group is usually spoken of as the white blood dyscrasias. The cause of the various members of the lymphoblastoma group is that of malignant growths in general and is unknown.

It remains for those who defend the theory of infectious etiology to demonstrate transmission of an infectious agent. This group of diseases is still rather confusing. The clinical picture of leukemia and mycosis fungoides together with blood studies will usually yield a diagnosis.

The diagnosis of Hodgkin's disease and lymphosarcoma can seldom if ever be made without a gland biopsy, and even then it may be difficult to differentiate them.—George J. Busman, M.D. and John M. Johnston, M.D., Pittsburgh; Penna. Med. Jour., Vol. 46, No. 11, August, 1943.

CARE OF WOUNDED BY ARMY-NAVY MEDICAL SERVICE EXTOLLED BY SQUIBB IN SERIES OF ADVERTISEMENTS

The bravery and skill of the Army and Navy medical services and the marvelous new drugs that are saving the lives, rehabilitating the bodies and alleviating the pain of men wounded in action are extolled in a series of advertisements in national magazines sponsored by E. R. Squibb & Sons, manufacturing chemists.

Illustrated with authentic action photos from the Army and Navy, as well as posed pictures in training hospitals, the advertisements point out that 97 out of 100 men in evacuation hospitals during the North African campaign *didn't* die, that it's 37 to 1, based on present statistics, that men wounded in Navy action won't die, and that men wounded in action often are under skilled medical care within ten minutes after they are injured.

Three reasons are given, quoting Surgeon General of the Army, for so many lives being saved — blood plasma, skillful surgery and "sulfa" drugs, in that order. Attention is called to a product newer than plasma — human serum albumin — which is made from blood given at donor centers, but is less bulky, easier to ship and use, and responsible for amazing recoveries from shock and burns.

The advertisements appear under the generic title of "Miracles of the Battlefront," and are designed to acquaint the public with the heroic work of the medical services of the Army, Navy, Coast Guard and Marines, as well as call attention to some of the life-saving, pain-relieving drugs that are being used. The advertisements were planned and prepared with the cooperation of the medical services. Six insertions, extending into 1944, are scheduled in "The Saturday Evening Post," "Good Housekeeping," "Life" and "Hygeia."

Medicine's Role in the War Effort

CARE OF WIVES AND BABIES OF SERVICEMEN

The following announcement was made by the Office of War Information on September 29:

More than 200,000 additional wives and babies of servicemen will be able to receive maternity and infant care during the remainder of this fiscal year as a result of the additional funds which the Congress voted yesterday (Tuesday) to the Children's Bureau in a deficiency bill, Secretary of Labor Frances Perkins stated today (Wednesday.)

"Servicemen and their families have reason to feel gratified and reassured that Congress has acted so promptly to replenish the funds needed to continue the maternity and infant care program, initiated last March," Miss Perkins said.

"With the additional $18,600,000 now made available in deficiency appropriation by action of the House and the Senate within two weeks of their reconvening, there will be no interruption in this humanitarian service, which was threatened with termination through lack of funds.

"Since the first appropriation for this service made by Congress in March of this year forty-four states, the District of Columbia, Alaska and Hawaii have submitted plans for cooperation in this program to the Children's Bureau and have received approval from the bureau. Of the remaining four states, Colorado and Texas are at present working out plans; Louisiana and North Dakota have so far failed to submit plans.

"Cases of nearly 50,000 servicemen's wives and babies have been authorized for care between the time the first state, North Carolina, received approval of its plan on April 8 and September 1. At the rate at which state health departments are requesting funds, it appears that for the remaining months of this fiscal year care will be requested for 20,000 to 25,000 cases each month.

"All of us, citizens in general as well as servicemen and their families, owe a debt to the state health departments which have given devoted service, without any financial assistance from federal funds, to get this program working. A heavy burden of responsibility rests on these departments, which not only prepare basic plans of operation but carry the full administrative weight of the operation of the program within their states. The thousands of doctors who are caring for the wives and babies also deserve our enthusiastic commendation. For many of them this service imposes an extra claim on time that is already crowded. The spirit of cooperativeness and loyalty which physicians have shown has contributed in large measure to the reassurance our servicemen have a right to feel that we at home are providing adequately for the safe birth of their children."

An amendment passed with the deficiency appropriation, Miss Perkins pointed out, limits the program to wives and infants of enlisted men in the four lowest pay grades. Between July 1 and October 1 wives and infants of servicemen in the top three grades below commissioned officers were also covered. These are now barred.

To obtain care under this emergency maternity and infant care program a serviceman's wife selects the doctor, either a private practitioner or a clinic physician, whom she wishes to provide care, and obtains from him a simple application form. Her doctor completes the application and forwards it to the state health department or other public health agency which it may designate. Both the doctor or clinic and the patient are then notified of the approval of the application. Similar application can be made when medical care is needed by the baby during the first year of life. Applications can also be obtained from the local Red Cross chapters, hospitals or local health agencies. Payment for services is made by the state health department to the doctor or clinic and to the hospital, if one is used.

Complete maternity service is obtainable during the antepartum period, childbirth and six weeks thereafter, including care of complications, operations, postpartum examination and medical care for the newborn baby. Hospital care is paid for at ward rates whether patients are cared for in wards or other accommodations. The money cannot be used to pay part of the cost of luxury accommodations.

On the basis of latest reports from the states, the Children's Bureau indicates the total number of cases authorized in each state from the date of approval of state plans up to September 1 as follows:

Over 4,000: Illinois, May 8 (date when plan was approved).

From 2,000 to 3,000: North Carolina, April 8; Michigan, May 12; Wisconsin, May 14; Indiana, May 12; Oklahoma, April 27; Kansas, May 21; Kentucky, May 8; New Jersey, April 27.

From 1,000 to 2,000: Mississippi, April 19; Missouri, May 29; Minnesota, June 4; South Carolina, April 17; Arkansas, May 4; Maryland, April 9; Utah, May 8; West Virginia, April 24; Florida, June 3; Connecticut, May 14; Nebraska, June 3.

Under 1,000: California, June 30; Washington, May 28; New Mexico, April 20; Ohio, August 2; Maine, May 4; New York, June 30; Montana, June 3; Arizona, May 8; South Dakota, May 21; District of Columbia, June 22; Delaware, April 29; New Hampshire, June 8; Idaho, May 24; Nevada, April 27; Wyoming, April 30; Hawaii, May 31; Iowa, June 30; Virginia, July 22; Tennessee, July 21; Alaska, July 10.

No record of cases yet available from these cooperating states: Georgia, August 18; Massachusetts, August 30; Oregon, September 18; Pennsylvania, September 20.

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WAR SURGERY IN THE MIDDLE EAST

During the last nine months of 1942, 3,279 battle casualties were admitted to one military hospital on the lines of communication in the Middle East. Because of the enemy's rapid advance to El Alamein the arrival of wounded was so rapid that the hospital had to act as a casualty clearing station rather than as a base hospital. The mortality rate for the 300 casualties from Tobruk was 3 per cent and for the 500 casualties from the second battle of El Alamein it was 10 per cent. The mortality rate for 2,679 casualties from the first battle of El Alamein, when the hospital acted as a casualty clearing station, was only 1.3 per cent. The high mortality rate for the casualties from Tobruk and from the second battle of El Alamein is due to the fact that seriously ill patients were sent to the hospital. The figure 1.3 per cent is approximately accurate for most casualty clearing stations. In analyzing the results, Lieut. Col. R. K. Debenham[1] emphasizes that all of the wounds dealt with were a result of fighting in dry sandy desert, that the amount of clothing worn was very small so that only rarely was clothing found in a wound, and that sulfanilamide was used prophylactically. As a routine 10 Gm. was dusted into the wound and another 10 Gm. after operation; 5 tablets (2.5 Gm.) were given by mouth at 6 a. m. and 6 p. m. daily for four days. The good results obtained in abdominal cases, particularly in those with bowel perforation, were due to early operation. Of the 11 patients with bowel perforation, the 9 who recovered were operated on in forward areas and were kept there from five to sixteen days; the cardinal points seem to be early operation, late evacuation, intravenous saline drip, continuous gastric suction and sulfadiazine. This is difficult with mobile warfare but was possible when the line of battle was static. The worst cases of burns came from fighting in tanks. Because facilities for preliminary cleansing were not obtainable, tanning was discarded in favor of cleansing and powdering the area with sulfanilamide and dressing with petrolatum gauze. Patients traveled best with plenty of padding, and for wounds of limbs a light, well padded plaster of paris cast was definitely beneficial. In the early stages intravenous plasma or serum was considered essential. Blood transfusions were used for secondary anemia a week or ten days later. Patients with severe burns traveled badly, even up to two weeks after burning. After a long journey they arrived toxic and ill. It is easy to put too much sulfanilamide powder on the burns, especially in severe cases, as sulfanilamide is readily absorbed from burned areas and gives rise to profound toxemia. Blood and plasma or serum transfusions were used for shock, for burns and during convalescence when the hemoglobin fell below 60 per cent. Gas gangrene has been rare and gas infection uncommon. No case of tetanus has been seen. Among the "don'ts" to be observed are listed:

Don't suture wounds. Don't suture amputation stumps.

Don't amputate at the site of election; go below it.

Don't use packing except to stop hemorrhage.

Don't use drainage tubing.

Don't use unpadded plasters.

Don't forget to give morphine before a long bumpy journey.

Don't forget to give plenty of fluids by mouth.

1. Debenham, R. K.: War Surgery in the Middle East, Brit. M. J. 2: 233 (Aug. 21) 1943.

Don't forget that the ligature of a main vessel should be prominently recorded on the field medical card and underlined.

The salient features of war surgery in the Middle East are based on the principles which have been in the process of evolution since the beginning of the war. They are summarized as follows: organized resuscitation and the use of local and general sulfanilamide; thorough immobilization; conservative surgery and wound trimming instead of wound excision; avoidance of tension around wounds and provision of a good blood supply in damaged limbs, and the necessity to adapt and improvise articles to fulfil functions for which they were not intended.—*J.A.M.A., Oct. 2, 1943.*

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NATIONWIDE CAMPAIGN FOR QUININE

In a nationwide campaign which began seven months ago for the conservation of quinine for the armed forces, more than eleven million 5 grain doses of quinine have been collected and are now en route to army and navy fighting fronts. The campaign was supported by thousands of retail pharmacists, wholesale druggists and hospitals and exceeded its goal by nearly 50 per cent. More than sixteen thousand packages have been received at the National Quinine Pool, American Pharmaceutical Association, Constitution Avenue and Twenty-Second Street N.W., Washington, D. C. The quinine arrived in the form of powder, plain and sugar coated tablets, crystals and liquid and was of both foreign and domestic manufacture. The medical departments of the Army and Navy have assigned pharmacists to assort and classify the contributions, which will be accepted until October 15.

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PRISONER OF THE JAPANESE

According to the Chicago *Tribune* of August 12, Lieut. Amiel L. Palermo, formerly of Chicago, is a prisoner of the Japanese. A card received recently by his mother indicated that he is being held a prisoner in the Philippines in prison No. 1. Lieutenant Palermo graduated from the University of Illinois College of Medicine, Chicago, in 1940 and entered the service on July 5, 1941.

EXAMINATION DATES FOR CANDIDATES FOR MEDICAL CORPS, REGULAR ARMY

The War Department announced on September 7 that examinations for the purpose of qualifying candidates for appointment as first lieutenants in the Medical Corps, Regular Army, to fill vacancies occurring during the fiscal year 1945 will be held on Jan. 24 through Jan. 27, 1944. The examinations are open to all male citizens of the United States who are graduates of acceptable medical schools in the United States and Canada, who have completed one year's internship in an approved hospital and who will not be over 32 years of age at the time it will be possible to tender a commission. The examinations will be conducted by boards of medical department officers and will consist of a physical examination, a written examination in professional subjects and a determination of the candidate's adaptability for military service. Candidates who fail a first examination will not be permitted to take more than one subsequent examination.

Full information and application blanks will be furnished on request by the Adjutant General, War Department, Washington 25, D. C. Applications from candidates in the continental limits of the United States received after Jan. 7, 1944 will not be considered.

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NEW FLYING AMBULANCES

The first high speed flying ambulances for navy and marine corps use are either on their way across the sea or have reached combat zones. The plane is a small transport which will carry two wounded men in wire stretchers and a crew consisting of pilot, co-pilot and nurse, and can operate from bases as far as 200 miles from battle zones.

The new ship was christened on Navy Day, October 27, in honor of Florence Nightingale, the first war nurse and the inspirer of International Red Cross. Manufactured by the Howard Aircraft Corporation of Chicago and St. Charles, Illinois, it will be known as the Howard-Nightingale. The name Nightingale will be protected by trade mark and copyright laws in the same manner as the terms Flying Fortress, Liberator, Thunderbolt and others applying to war planes.

The christening ceremony was a notable one because of the participation of Sister Elizabeth Kenny, originator of the Kenny system for infantile paralysis treatment. The Australian nurse was profuse in her praise of the United States Navy for designing a special mercy plane in an era characterized generally by barbarism. It was pointed out at the ceremony that transportation of badly wounded men to base hospitals can further strengthen the life saving elements introduced in the war by this country. These elements recently listed were, in order: 1, blood plasma; 2, transportation of the wounded to fully equipped hospital units; 3, sulfa drugs; 4, improved surgical techniques.

The Howard-Nightingale will be capable of landing in almost inaccessible spots, picking up the wounded and carrying them swiftly to well equipped hospital units without shock or further injury to broken bones. The speed of the plane will be at least 2½ miles a minute.

One of the interesting features is a stretcher and stanchion design. The stretchers are formed of wire to the shape of a man's body and are 6 feet long inside. Each stretcher is surrounded by a carrying rail and can be handled by either two, three or four men. The patient is held rigidly in position. If necessary the plane can resort to dodging tactics without serious consequences to the casualties.

Navy officers interested in the Howard-Nightingale predicted that it would be a source of comfort and morale building both to men in combat and to navy families in this country.

The Nightingale series is known in navy language as the GH-2 and is a five-place, high wing, cabin monoplane with a 450 horse power engine and variable pitch propellers. The plane is a standard model of the Howard Aircraft Corporation adapted to the purpose for which the navy desired to use it. A special stretcher door opens on the right side, back of the cockpit door.

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AVIATION MEDICAL EXAMINERS

Graduation exercises were held at the School of Aviation Medicine, Randolph Field, Texas, on August 26 following completion of the course for aviation medical examiners. The didactic portion of the course was conducted at the School of Aviation Medicine, Randolph Field, Texas, and the practical portion of the course at the three army air forces classification centers. The list of students from Illinois graduating follows:

Raymond H. Abrams, 1st Lieut., Chicago; Marvin F. Austin, Major, Chicago; Ben H. Barbour Jr., 1st Lieut., Centralia; George W. I. Bard, 1st Lieut., Sheldon; Merrill C. Beecher, 1st Lieut., Knoxville; Carl A. Gebuhr, 1st Lieut., Evanston; John W. Gray, Captain, Geneva; Anton P. Huml, 1st Lieut., Peoria; Roland F. K. Jordan, Captain, Pekin; Herbert Kahan, Captain, Chicago; Emerson C. Kunde, Captain, Woodstock; Robert C. Long, 1st Lieut., Chicago; Cornelius E. Murphy, Captain, Chicago; Oliver Rian, Captain, East Peoria; Frederick J. Ricketts, Captain, Sadorus; Percy J. Ross, Major, Chicago; Lee H. Schlesinger, Major, Hines; Edward J. Schmehil, 1st Lieut., Chicago; Albert Sheade, 1st Lieut., Chicago; Everett L. Strohl, Major, Chicago; Charles R. Sugden, Captain, Deerfield; Sydney W. Tauber, 1st Lieut., Chicago; Scottie J. Wilson, 1st Lieut., Urbana.

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INTERN-RESIDENT PROGRAM FOR HOSPITALS

Considerable confusion seems to have arisen regarding the number of internships and residencies which may be maintained by hospitals under the new intern-resident program which has been made possible by the deferment of certain numbers of interns and residents holding reserve commissions in the Army and Navy.

To meet the minimum needs of hospitals nationally, twice as many residents as will be deferred by the Army and Navy will be required. The remaining half (those not deferred by the Army and Navy) must be made up of physically disqualified men and women in order to give the hospitals minimum adequate house staff coverage.

This program definitely does not state that a hospital may only, or will necessarily, retain one third of its interns to serve as junior residents, nor does it mean that a hospital may only, or will necessarily, retain one half of its junior residents as senior residents. These fractions were published to show the overall proportion of commissioned officers now under the jurisdiction of the Army and Navy who would be deferred by the military services to serve as one source of personnel for civilian hospital appointments.

The program does state that, generally speaking, hospitals will be able to retain about two thirds of their 1940 house staffs, provided there has been no pronounced decrease or increase in patient load since that time. This two thirds will comprise those ineligible for military service as well as those deferred by the Army and Navy.

The first fraction represents the proportion of deferments by the armed forces of commissioned officers (9-9-9). The second figure concerns the allocation — the combined deferred officers and those physically disqualified — to the hospitals (approximately 66 2/3 per cent of the 1940 staff). Each hospital should procure as many physically disqualified men as possible, and only the remainder unable to be procured from this source can be obtained from those deferred by the Army and Navy.

The hospital questionnaires, which the Procurement and Assignment Service urgently requests hospitals to return, will give the needed information to determine a general basis for estimating the number of interns and residents which each hospital should have on the basis of the 1940-1942 house staff. There will probably be some necessary changes in individual hospitals which have peculiar or particular problems, but the formula will apply to all general hospitals.

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DOCTORS OPERATE UNDER SHELLFIRE

Following is a dispatch as printed in the Chicago *Sun,* September 24, from the United Nations Headquarters in North Africa:

Three delicate operations of brain surgery were performed successfully in a tent among the sand dunes of Salerno during the critical days when the Germans had the entire Fifth Army bridgehead under artillery fire, it was revealed today.

Lieut. Col. Paul K. Sauer of New York Hospital took his contingent ashore amid a rain of German lead.

Exhausted by two days and night of bombing, strafing and mortar fire, the men of the evacuation hospital finally organized their scattered equipment and spent all night setting up portable operating rooms and tent walled wards on a field not far inland. Then the tired staff began a twenty-four hour schedule of operations and treatment.

Major Howard A. Patterson of New York, former surgeon at Roosevelt Hospital and a veteran of the Tunisian campaign, led his surgical staff in a round the clock schedule, with three teams working in succession on never empty operating tables.

Nurses were not due to be landed for several days, so the hospital's enlisted men donned operating gowns and sterilized masks and worked long hot hours in operating tents. Many had no more than two hours' sleep in the first three days.

Casualties that piled up during the first week of the campaign made expansion necessary, so a surgeon was added and then tents from a medical battalion. Abdominal punctures, head wounds, fractures and burns formed the bulk of the hospital cases.

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FOREIGN LANGUAGE REQUIREMENTS FOR PREMEDICAL STUDENTS

The Bureau of Naval Personnel of the Navy Department, Washington, D. C., announced on September 9 the interpretation of the foreign language requirements for premedical students as referred to in References (a) V-12 Bulletin No. 1, (b) V-12 Bulletin No. 22, and (c) V-12 Bulletin No. 2.

1. Reference (b), page 12c, language requirement for subject students shall be interpreted as follows:

V-1 and V-7 transfers to V-12, who are pursuing a pre-medical program, shall complete the equivalent of twelve college semester hours of a single foreign language. French, German or Spanish is preferred, but other languages may be substituted at the discretion of the college authorities. A high school unit (one year) is to be considered equivalent to six semester hours.

2. In accordance with reference (c), page 3, paragraph 8, other premedical students entering the V-12 program with advanced standing must meet minimal requirements prescribed for V-1 and V-7 transfers to V-12.

3. Only premedical students entering the V-12 program as freshmen will be required to take the fully prescribed course outlined in refer-

ence (a). Attention is invited to the fact that French, German or Spanish is preferred, but other languages may be substituted under exceptional circumstances. Interpretation of "exceptional circumstances" shall be the responsibility of the college authorities.

PROPHYLACTIC DOSES SULFADIAZINE CURB MENINGOCOCCIC MENINGITIS EPIDEMIC

The prophylactic administration of sulfadiazine by mouth, even in relatively small doses, appears to be a safe and effective method for curbing epidemics of meningococcic meningitis (infection with the meningococcus of the three membranes that envelop the brain and spinal cord) among large numbers of troops. Colonel Dwight M. Kuhns, Medical Corps, United States Army; Captain Carl T. Nelson and Captain Harry A. Feldman, Medical Corps, Army of the United States, and Captain L. Roland Kuhn, Sanitary Corps, Army of the United States, report in *The Journal of the American Medical Association* for October 9.

"This method of prohylaxis might also prove to be of value in terminating outbreaks of this disease in other situations, for example on troop transports at sea or in schools, orphanages and other institutions," the four officers say.

"Sulfadiazine was administered prophylactically to more than 15,000 troops in residence at two posts where meningococcic meningitis was particularly prevalent during the spring of 1943. In one instance 3 Gm. of drug was given by mouth daily for three days; in the other the dose of 2 Gm. daily for two days.

"Following the institution of prophylactic therapy the incidence of cerebrospinal fever among the treated individuals fell abruptly. Only 2 cases of the disease occurred during a subsequent period of eight weeks of observation. At the same time 40 cases were found among 18,800 untreated controls.

"Meningococcus carrier surveys showed that the administration of sulfadiazine by mouth effectively lowered the carrier rate in the treated group at a time when the incidence of carriers among the untreated controls remained high or actually increased.

"No serious toxic reactions resulted from the large scale administration of the drug. The treated men continued their usual daily activities without interruption."

In the introduction to their report the four investigators explain that from Jan. 1, 1943 to April 30, 1943 more than 1,300 cases of meningococcic meningitis occurred among military personnel in the Fourth Service Command.

"The customary control measures employed during outbreaks of meningococcic meningitis," they say, "include quarantine, prevention of overcrowding, protection from fatigue and exposure, and the prompt hospitalization or isolation of all cases of common respiratory illness. It is admitted, however, that these measures are only partially effective and, under conditions of active military training, can be properly applied only with considerable difficulty. It seemed desirable, therefore, to seek additional means of controlling this disease, particularly among the relatively 'unseasoned' recent inductees. To be useful under military conditions, any control measure proposed must be applicable to large numbers of individuals without causing serious interruptions in daily activities. The remarkable effectiveness of sulfadiazine in the treatment of meningococcic meningitis suggested that it might be of prophylactic value in the control of this disease among troops. . . . Although the exact role of the carrier in relation to the spread of meningococcic meningitis is not entirely clear, it seems logical that a measure which can quickly reduce the carrier rate to a low level may be valuable in retarding sharp outbreaks of this disease. Indeed, reports transmitted from the Office of the Surgeon General have indicated that sulfadiazine has been of value in controlling meningitis at several army posts in recent months. . . ."

BACK THE ATTACK!

BUY

WAR

BONDS!

Original Articles

CONVULSIONS IN CHILDHOOD

M. G. Peterman, M.D.
MILWAUKEE

The greatest contribution ever made to the study of convulsions was presented by Hans Berger of Jena in 1929 when he reported the results of his electroencephalography in clinical medicine.[1] Berger's instrument which makes it possible to record the electrical activity of the brain provided the first opportunity to demonstrate a potential convulsive disorder even before the first convulsion. It also established the organic nature of epilepsy and thus eliminated the confusing idea of a "functional state." A positive electrogram has been obtained in over 85 per cent of clinically diagnosed cases of idiopathic epilepsy.[2] The heredity of this disease which has long been emphasized[3] has now been established.[4] Abnormal electrograms have been reported in 52 per cent of the near relatives of epileptics.[5] In a group of inductees with a family history of seizures abnormal tracings were found in 62 per cent.[6]

Classification. — The first classification of convulsions in childhood was presented in 1932[7] and was revised in 1939.[8] (Table 1.) A new classification was presented in 1940, based on our knowledge of electroencephalography.[9] (Table 2.) In a previous study made before I had an electroencephalograph I was unable to establish the cause of convulsions in 53 of 1000 children.[8] The use of the instrument has now reduced the number of unclassified or undiagnosed convulsions to a very small percentage. Also, in the previous classification I listed 34 per cent of the convulsions as due to or associated with acute infections.[8] This terminology admittedly did not furnish a diagnosis nor a satisfactory explanation of the basic cause or etiology of these one-third of the convulsions in childhood.

TABLE I
CONVULSIONS
One Thousand Cases — Total Series

	Per cent
Acute infection	34.0
Idiopathic epilepsy	23.6
Cerebral birth injury or residue	15.5
Miscellaneous causes	12.7
Spasmophilia or tetany	8.9
Cause not established	5.3

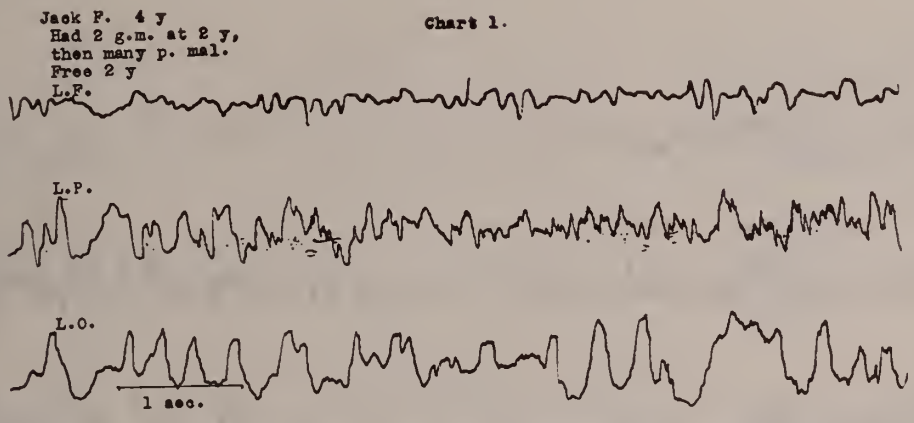
TABLE II
CAUSES OF CONVULSIONS

Organic	(1. Congenital or developmental cerebral anomalies
	(2. Antenatal, natal, or postnatal cerebral injuries
	(3. Antenatal, natal, or postnatal infections or poisonings and the residues thereof
	(4. Idiopathic epilepsy
Nonorganic	1. Chemical injuries or acute poisonings

Sporadic Convulsions. — Only a relatively small number of children suffer sporadic convulsions. Many of these have only one or two seizures and often only after the body temperature reaches a certain point. They usually present no other evident manifestation of a cerebral disease. It is extremely important to know whether this lowered convulsive threshold is functional or organic, temporary or permanent. Only the electroencephalograph can provide the answer. One of the greatest problems in diagnosis is the evaluation of such single or

Presented before the Joint Session, 103rd Annual Meeting of the Illinois State Medical Society, Chicago, May 19, 1943.

scattered convulsions in a child otherwise healthy. I am collecting a series of electrograms on these children and find the majority to show cerebral dysrhythmia or abnormal tracings. Following is a case in point. Jack F., 2½ years of age, had one convulsion at 16 months and another at 18 months of age. The parents wished to know why and whether they could expect more seizures. The electrogram (chart 1) shows a cerebral dysrhythmia, one-per-second high waves 15 months after the last seizure. (Chart 1.) The physical and the laboratory examinations showed no abnormalities. With a family history of convulsions on both sides a diagnosis of epilepsy



was made. Treatment was declined, and a convulsion recurred 6 months later. The seizures are now under control with phenobarbital.

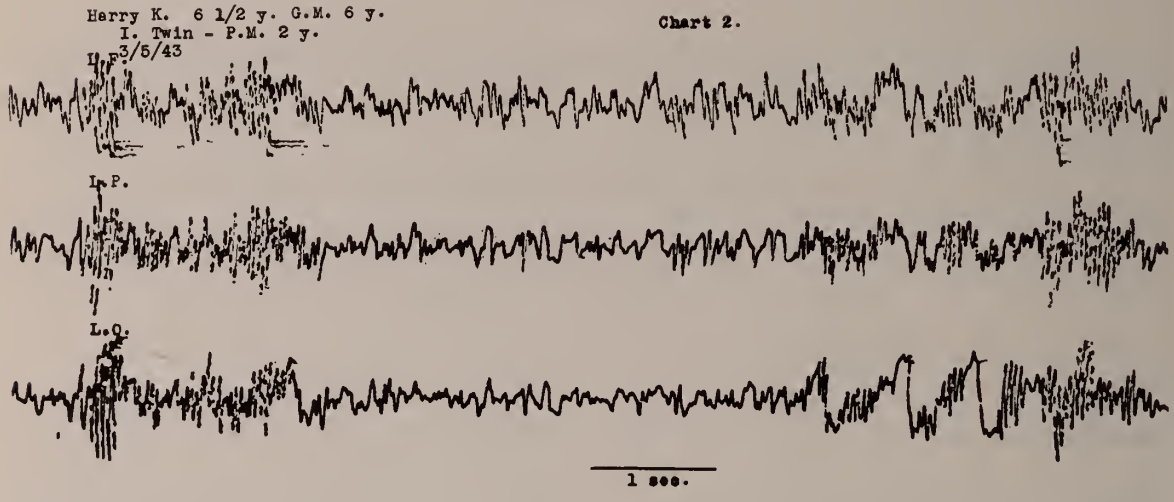
Harty and the Gibbs found abnormal electrograms in 50 per cent of inductees who gave a history of a few isolated convulsions in childhood.[6] Thus it seems that contrary to previous reports[10] most of these convulsions represent a lowered cerebral threshold due to an organic defect or lesion such as idiopathic epilepsy or the residue of cerebral injury. (I do not include the isolated convulsive reactions to a poison or toxin.) Careful examination of these children may occasionally reveal a slight incoördination of fine movements, a transient slight spasticity of certain groups of muscles, or an impulsive emotional instability. Any or all of these manifestations may become evident only under some unusual stress or strain. In other words, the basic organic pathology is present, but under normal conditions it can be demonstrated only with the electrogram.

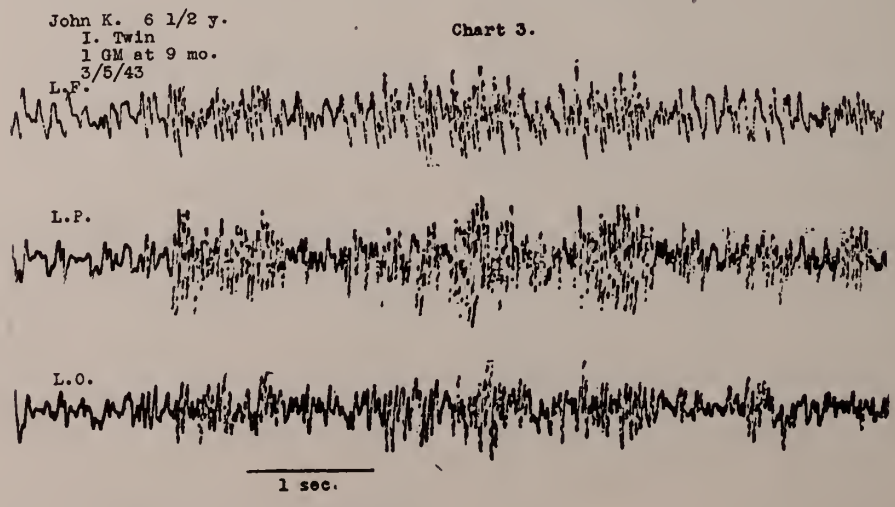
Precipitating Factors. — Any stimulus received under abnormal conditions or any abnormal stimulus under normal conditions may be the trigger mechanism or match which sets off the explosion. Some of the abnormal stimuli which may precipitate seizures include emotional disturbances (such as sudden fright), irritation of the carotid plexus, and continuous stimulation of the retina with a brilliant light. A petit mal seizure may often be precipitated by having the child stare at a brilliant light. The transient abnormal conditions under which normal stimuli may precipitate seizures in the individual with an organic cerebral defect include hypoglycemia (due to fasting or to hyperinsulinism), cerebral anemia or anoxia, alkalosis (such as that induced by hyperventilation[11] or hyperemesis), gastro-intestinal disturbances (such as acute gastric dilatation, acute indigestion, intestinal stasis, or constipation). I have seen fainting spells, attacks of vertigo, confusion, or collapse but never a tonic or grand mal convulsion due to hypoglycemia. Others have reported the same observation.[12]

Since the Gibbs and Lennox have found abnormal electrograms in 15 per cent of 1000 normal controls[6] and Harty and the Gibbs in 13 per cent of 148 selected controls,[6] it is not surprising that convulsions occur suddenly and most unexpectedly or that epilepsy may begin at any age. How many potential epileptics live and die without ever experiencing a recognized convulsion only the electroencephalograph can reveal today. Lennox reported that in twelve sets of identical twins, one of each subject to seizures,

the opposite twin had an abnormal electrogram in each instance.[4] I have studied two sets of identical and two sets of non-identical twins; in one of each set epilepsy was present. The identical seven-year-old twin boys provide the greatest scientific interest. Each had one convulsion at 9 months of age. H. has had a gradually increasing number of grand mal seizures since. For the past two years he has also had petit mal seizures. (Chart 2.) J. has had no further recognized seizures or abnormalities. J.'s electrogram shows a greater dysrhythmia than does his brother's. (Chart 3.)

Diagnosis of Epilepsy.— The diagnosis of idiopathic epilepsy is not always easy.[13] Because of the stigma of this disease with all of its connotations and because of the necessity of prolonged treatment, this diagnosis should not be made without adequate confirmation. Except for the electrogram there is no examination or test which will establish the diagnosis. The most valuable and useful aid in our whole armamentarium is a reliable and complete history which includes an accurate description of the seizures. Whenever possible an electrogram should be made. A positive tracing will settle





the problem. The following case illustrates the value of the electrogram.

Shirley K., a thirteen-year-old girl, according to the mother has been an epileptic since birth; the first convulsion supposedly occurred when the patient was only a few hours old. The convulsions recurred intermittently and the patient was unable to attend schools, to go out alone, etc. For three months the mother has noticed that the patient is becoming more and more irritable, easily thrown into temper tantrums and lately it has been impossible to control her at home. The patient has been taking phenobarbital, grains 1½, three times a day. "Physical examination was essentially negative, except for a slight increase of the left patellar reflex and marks in the tongue, suggestive of teeth marks. Since entrance patient has had several convulsions. These convulsions have been typically hysterical, with pupils reacting to light and accommodation, normal extra-ocular movements, no neurological signs and no loss of consciousness. On this basis phenobarbital was withdrawn and patient was given benzedrine sulphate, milligrams 5, morning and noon daily. To date no change has been observed in patient's condition as a result of the change in medication." The interne's description of the convulsion indicates his trend of thought. There was considerable difference of opinion among the consultants as to the diagnosis. The electrogram[2] (Chart 4) established the diagnosis of convulsive state. This is probably due to the residue of a cerebral birth injury. Chart 4.

Treatment. — The treatment of convulsions resolves itself into two phases, the immediate and the continued.[14] The immediate treatment of the convulsion demands, first, a rapid appraisal of the child's condition and an attempt to diagnose the cause. (Table 3.) First of all, *do not* put the child in a hot bath, and secondly, *do not* give morphine. Morphine will depress the respiratory center, contract the pupils, inhibit peristalsis, and mask the symptoms. The child will usually have a fever and a tepid or cool sponge or pack is indicated. If necessary, a cool enema may be added to reduce the body temperature. This should be followed by antipyretics to keep the temperature down.

If there is no fever or if the convulsion persists, the most effective and the simplest treatment is to administer vinyl ether or chloroform by the open drop method. Every hospital should have one or both of these anesthetics ready for prompt administration whenever the emergency arises. The danger or harmful effect of these drugs is nothing compared to the effect of a continued convulsion. If chloroform or vinyl ether are not available, sodium phenobarbital may be given by hypodermic injection. Magnesium sulphate may be given in a saturated (50 per cent) solution by mouth or in a retention enema, ½ to 1 ounce every four hours. For quick action this drug may be given intramuscularly or intravenously in sterile solution. Two to 8 c.c. of 50 per cent solution may be injected deep into the muscles every four hours.

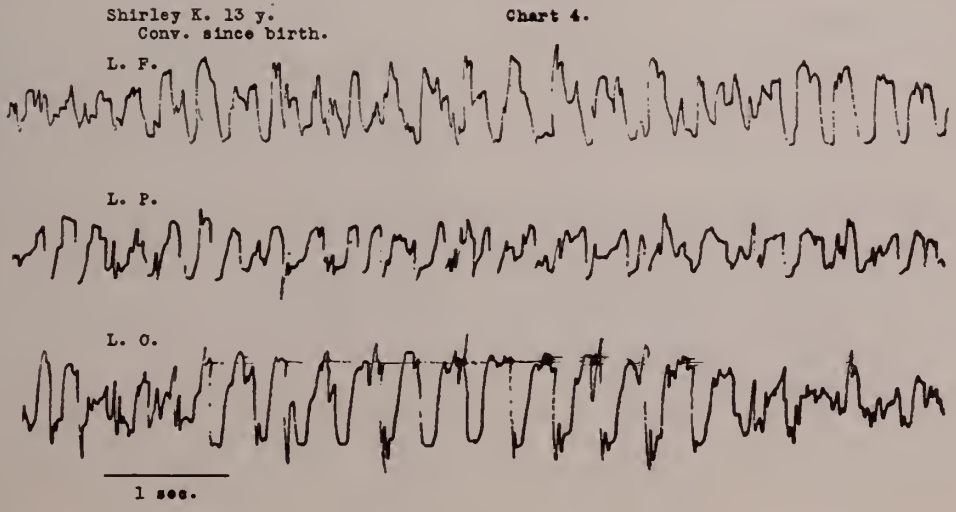


TABLE III
IMMEDIATE TREATMENT OF CONVULSIONS

1. Protect against injury; no opiates.
2. Reduce fever.
3. Chloroform or vinyl ether anesthesia.
4. Magnesium sulfate, repeat every six hours.
 60 to 180 cc. of 50 to 25 per cent solution by mouth or rectum, or
 5 to 20 cc. of 25 per cent sterile solution intramuscularly, or
 2 to 10 cc. of 20 to 10 per cent sterile solution intravenously *slowly*.
5. Calcium gluconate by mouth or intramuscularly.
6. Calcium chloride by mouth for tetany.
7. Tribromethanol by rectum for tetanus.
8. Phenobarbital sodium subcutaneously.
9. Chloral by rectum.
10. Absolute rest and quiet for days after.

Two to 5 c.c. of 25 per cent solution may be given intravenously by slow injection.

A most important factor in the treatment of an acute generalized convulsion is a realization of the injury which the convulsion may and often does produce to the brain. Therefore it is essential to keep every patient who has had a convulsion at absolute rest for several days thereafter.

The treatment of recurring convulsions will not be detailed here. Suffice it to say that the ketogenic diet remains the most effective treatment available for epilepsy.[15] It is the only treatment which has any effect on petit mal epilepsy.

Phenobarbital remains the drug of choice in those cases in which the ketogenic diet is not practicable or in which the results have been unsatisfactory.[16]

411 East Mason Street

REFERENCES

1. Berger, Hans: Ueber das Elektrenkephalogramm des Menschen, Arch. Pyschiat., 87:527, 1929.
2. Gibbs, F. A., Gibbs, E. L., and Lennox, W. G.: Brain, 40:377, (Dec.) 1937.
3. Peterman, M. G.: Ibid. Epilepsy, Am. J. Dis. Child., 32: 416, (Sept.) 1926. Epilepsy, Acta Paediat., 11:527, (Aug.) 1930.
4. Lennox, W. G.: J. A. M. A., 120:449, (Oct. 10) 1942.
5. Lennox, W. G., Gibbs, E. L., and Gibbs, F. A.: Arch. Neurol. & Psychiat., 44:1155 (Dec.) 1940.
6. Harty, John E., Gibbs, Erna L., and Gibbs, Frederic A.: Electroencephalographic study of 275 candidates for Military Service, War Medicine, 2:932, (Nov.) 1942.
7. Peterman, M. G.: Convulsions in Childhood, J. A. M. A., 99:546, (Aug. 13) 1932.
8. Peterman, M. G.: Convulsions in Childhood, J. A. M. A., 113:194, (July 15) 1939.
9. Peterman, M. G.: Convulsions in Childhood, Journ. Pediat., 17:114, (July) 1940.
10. Patrick, H. T., and Levy, D. M.: Early Convulsions in Epileptics and in others, J. A. M. A., 82:375, (Feb. 2) 1924.
11. Rosett, Joshua: Brain, 47:293, (Aug.) 1924.
12. Ziskind, Eugene: Insulin Hypoglycemia in Epilepsy, Arch. Neurol. and Psychiat., 36:331, (Aug.) 1936.
 Ziskind, Eugene, Hollomb, B.S., and Bolton, R. O.: Differential Diagnosis of Hypoglycemic Convulsions, Am. J. Med. Sc., 192:600, 1936.
 Pollack, L. J., and Boshes, B.: Carbohydrate Metabolism in Epilepsy, Arch. Int. Med., 59:1000, 1937.
13. Peterman, M. G.: Epilepsy in Childhood, Wis. Med J., 41:1001, (Nov.) 1942.
14. Peterman, M. G.: Treatment of Convulsions, Therapeutics of Infancy and Childhood. Vol. III Chap. LX, p. 2303, (by Litchfield and Dembo,) F. A. Davis Co., Phila., 1942.
15. McQuarrie, Irvine: Epilepsy and Convulsive Disorders, Practice of Pediatrics, vol. 4, chap. 12, W. F. Prior Co., Hagerstown, Md., 1942.
16. Peterman, M. G.: Epilepsy, J. Kansas Med. Soc., 41:277, (July) 1940.
17. Bethea, O. W.: Therapy of Convulsions, Internat. Med. Digest, 36:50, (Jan.) 1940.

DISCUSSION

Dr. Meyer Perlstein (Chicago): This being the last paper, reminds me of the claim that when surgeons get together it ends in a fight, but with pediatricians it ends in convulsions.

This extremely interesting film of Dr. Peterman is worthy of a lot of comment. I do not know of another motion picture that shows clinical convulsions. All the commercial pharmaceutical firms have many pictures on suturing, surgery or suppositories, but none has a picture on convulsions. I can well appreciate the difficulties that Dr. Peterman had, because I am trying to do the same thing. One of the medical schools that would like to have me make a picture on convulsions for teaching purposes, asked me to write a scenario first. Of course, for a film on convulsions, this is impossible, for convulsions are not thrown at will, and need no rehearsals. You have to film them when you see them.

The value of a picture such as Dr. Peterman's is really for teaching purposes. These pictures tell you a lot more about convulsions than reams of paper or volumes of books. Often the character or cause of a convulsion can be determined by ordinary observation of the convulsion. For instance, the trismus and risus sardonicus of the tetanus patient is diagnostic of the condition. The convulsions are characterized by pain, and once seen can never be forgotten. Likewise, the convulsions of rabies are characterized by fear, as the word hydrophobia indicates. The convulsion that occurs in a child with a tuberculosis meningitis or encephalitis is frequently unilateral. You can often get a hint that you are dealing with a basilar meningitis from the opisthotonic convulsion in this condition. The carpopedal spasm of tetany is likewise diagnostic. Sometimes it is not even necessary

to see the convulsion to know its cause, for often the general appearance of the patient gives the diagnosis away. Thus in tuberous sclerosis, the patient has a typical adenoma sebaceum. In one of the less common causes of convulsions, a premature closure of the skull sutures, where the skull ceases to grow and the brain continues to grow, typical facies is apparent. It is characterized by prognathism. There is a proptosis and some exophthalmos and the eyes are set widely apart. These and many other clinical signs are best demonstrated by pictures.

I think the concept that Dr. Peterman has mentioned regarding the genesis of convulsions, in its relationship to cerebral dysrhythmia, is very new.

We used to laugh about grandmothers saying that worms and fever and fright caused convulsions. Actually, they can act as a trigger mechanism to cause convulsions in an individual who has that constitutional diathesis of cerebral dysrhythmia.

I want to say a few words about some of the unusual causes of convulsions in children. Although most convulsions are due to cerebral dysrhythmias, not all are. Among the less common causes of convulsions, I want to mention lead poisoning, which in children will frequently begin with convulsions. In adults, wrist drop, vomiting, constipation and colic are common, but in children convulsions are the outstanding manifestation. We have seen over 50 cases of plumbism in children in the last six or seven years, which is not uncommon. The majority of these cases might indicate that the condition was due to the burning of battery cases; two were due to the sucking of lead toys, and several were due to drinking contaminated water which had stood in lead tanks or pipes.

Although Dr. Peterman states that he has not seen convulsions in hypoglycemia, we have seen definite hypoglycemic convulsions. These may have been cerebral dysrhythmias in whom the precipitating mechanism might have been the hypoglycemia. That possibility is indicated by the fact that in one of these children, whom we followed for four years, until she was old enough to have an electro-encephalogram, we found a cerebral dysrhythmia.

Spasmophilic tetany is becoming a rare disease now, because of the general improvement in infant feeding. In going over the record of our convulsions at the County Hospital, we were impressed by the fact whereas ten and twenty years ago most of the tetanies occurred in children between six and eighteen months of age, that of the eleven tetanies in the last several years, nine of them occurred in children under seven months of age, and seven of these were in infants under three months of age. Apparently, when tetany does occur now, it is of the severe type which attacks very young infants.

Tetany of the new-born, which is a recognized syndrome, really occurs at times. I believe I have seen relatively recently three cases of the disease, where convulsions began on the third day of life, the calcium being between five and six, and phosphorus up to fourteen or fifteen, mgs. per 100 cc. of blood. The mechanism of this type of tetany is different from avitaminotic tetany. It is thought to be due to a temporary hypoparathyroidism in the infant, induced by a maternal physiological hyperparathyroidism.

Finally, let me call attention to a very rare cause of convulsions in the new-born, of which I have seen only one case; namely, congenital morphinism. I was called to attend a child born to a morphine addict, taking ten grains of morphine a day. On the third day of life the child developed tremors, vomiting, diarrhea, restlessness and a convulsion. These are typical withdrawal symptoms. This was a child with a congenital morphinism. Although I was unaware of the existence of this syndrome at the time, I was surprised to learn that the mother expected it. She knew more about it than I did. I could not find any reference to this condition in the text books on pediatrics, except for an excellent discussion of the condition in Dr. Tow's book on *Newborn*. Thus, in children born to addicted mothers, one must be on the lookout for convulsions and other symptoms of congenital morphinism.

I want to congratulate Dr. Peterman again on his excellent work in the field of convulsions in children.

Dr. H. E. Irish (Chicago): I think this is a wonderful paper and a wonderful contribution.

Dr. M. L. Blatt has some revealing movies on the convulsions of rabies, and I hope that perhaps sometime in the not far future that collections of these films, possibly derived from various sources, will be put out by some one — perhaps the American Academy of Pediatrics — so that educational institutions can use them to teach students something about which we talk and about which we lecture, but which we never can show them because usually the convulsions do not occur at the time when the students are at the site of a seizure.

Such an arrangement would certainly be a vast help to students, and I am sure that many older men would enjoy knowing something about the different varieties of convulsions.

As far as the general practitioner is concerned, he is the man who sees these dozens of convulsions that occur, and as a rule he is pretty competent to handle them, and I think handles most of them rather well.

We know that tuberculosis is caused by the tubercle bacillus, but we also know that malnutrition, fatigue, dust, poor ventilation, poverty and overcrowding are contributing factors. Henrietta Landau, Pub. Health Nursing Consultant, U.S.P.H.S. Hoosier Health Herald, Oct. 1942.

Doctors should do their knocking with a reflex hammer.—Fetterman.

TUMOR DIAGNOSTIC SERVICES IN ILLINOIS

HARRY OTTEN, M.D., F.A.C.S.

SPRINGFIELD

1. *Introductory.* Cancer has become during recent years an increasingly important disease in the practice of medicine. With an annual numerical increase in mortality of about two per cent cancer has risen to second place as a principal cause of death, exceeded only by heart disease. The development of modern methods in the pathology, diagnosis, treatment and follow-up of cancer has created one of the most complex problems in any field of medical practice. It is now generally recognized that cancer is not a single disease but a large group of diseases differing widely in their pathological characteristics and their clinical manisfestations. The pathologist recognizes about 600 types of neoplastic disease. Patients with even well established cancer may have amazing good health and offer little or no complaint. In early cases the signs and symptoms may be so confusing that a differential clinical diagnosis is difficult, if not impossible. The diagnosis and treatment of cancer is accordingly no longer a "one man job." In many cases a competent diagnosis requires the *combined* judgment of the surgeon, the radiologist, the pathologist, the internist, and the specialist in a particular field. When the diagnosis has been definitely established, the next most important step is a consultation between the surgeon and the radiologist as to the best method of treatment, each keeping in mind the possibilities of the other's methods as well as the limitations of his own.

2. *State Tumor Diagnostic Services.* A recognition of the need for such group diagnostic facilities in the treatment of cancer was substantially expressed by the organization of the Division of Cancer Control in the State Department of Public Health in 1940, and the subsequent provision of funds for the establishment of Tumor Diagnostic Services in connection with general hospitals at a few selected points in the State. This action was in line with the consensus of authoritative opinion in the cancer field that tumor services in general hospitals constitute at present the most effective means of reducing cancer morbidity and mortality.

This program was developed under the direct supervision of the Advisory Board to the Division of Cancer Control, which at present consists of the following members:

Roswell T. Pettit, M.D., Ottawa. . . Chairman
William Cooley, M.D., Peoria
Fauntleroy Flinn, M.D., Decatur
James P. Simonds, M.D., Chicago
James S. Templeton, M.D., Pinckneyville
John A. Wolfer, M.D., Chicago
Edwin F. Hirsch, M.D., Chicago. . . Secretary

The Illinois State Medical Society has formally approved in principle this work by action of the House of Delegates.

State Tumor Diagnostic Services are at present in operation under the auspices of the Division of Cancer Control at the Memorial Hospital, Springfield; the Methodist Hospital, Peoria; St. Anthony's Hospital, Rockford; and the Burnham City Hospital, Champaign. Additional Services have been approved by the Perry County Medical Society for Du Quoin, and the La Salle County Medical Society for Ottawa; but the lack of personnel due to the withdrawal of physicians from civil practice in the present emergency has prevented their establishment.

The policies, objects, organization, and conduct of these Services (as set forth by the Division of Cancer Control) are as follows:

Policies. The local County Medical Society shall approve the establishment of the Service.

The local Hospital shall independently organize and conduct the Service.

The requirements of the American College of Surgeons for the organization and conduct of such a Service shall approximately be met.

The State Department of Public Health, through its Division of Cancer Control, shall promote the Service, provide funds and exercise reasonable supervision.

Objects. The primary objects of the Service shall be:

To provide a competent consultation service for physicians and dentists in the diagnosis of their suspected tumor cases.

To provide a concentration of clinical material for study by specialists in the cancer field.

To collect and record data necessary to determine the end results of treatment.

Presented before the Joint Session of the Section on Surgery and Central States Society of Industrial Medicine and Surgery, Illinois State Medical Society, 103rd Annual Meeting, Chicago, May 18, 1943.

To follow up cases effectively for early detection of possible recurrence of disease.

Handling of Cases. Patients shall be admitted to the Service only by reference of a phsysician.

The referring physician should preferably accompany the patient.

Unaccompanied patients should bring a written statement from the physician giving a brief history of the case, including laboratory and x-ray reports.

A written diagnosis and recommendations for treatment shall be made by the Service Staff; and the patient shall be directed back to the referring physician for further action.

Provision should be made for examination by Tumor Service Staff members of patients referred on any day between regular clinical sessions, as a means of prompt service both to physicians and patients.

All outpatients and ward patients admitted to the Hospital presenting a cancer, benign tumor or precancerous condition should automatically be referred to this Service.

No treatment shall be rendered by the Service in any case.

Biopsies may be performed as a diagnostic procedure at the discretion of the Service Staff.

Medical Staff. Appointments to the Staff of the Tumor Diagnostic Service shall be made on a permanent basis and in accordance with customary procedure by the local Hospital.

Appointment of alternate Staff Members may be made to insure proper functioning of the Service; and a reasonable rotation in term of office may be permitted in such appointments.

The medical Staff of the Service shall include without exception a pathologist, radiologist, general surgeon, and internist; each of whom preferably has special ability in the cancer field.

Additional Staff Members of the Service should include qualified representatives of the surgical specialties, dermatology, dentistry.

One of the Staff Members of the Service shall be appointed as Director of the Service. He should be selected both for his broad experience in the cancer field and his fairness in dealing with his colleagues.

Appointments to the Medical Staff of the Tumor Diagnostic Service should include representatives of the various hospitals in the local area, on the broadest possible basis consistent with efficient organization.

Technical Staff. Appointments to this Staff should include a medical secretary, pathology technician, radiology technician, and a clinic assistant (registered nurse).

Personnel of this Staff should be employees of the local Hospital conducting the Service and entirely responsible to the Hospital management.

Conferences. Full clinical sessions of the Tumor Diagnostic Service should be held preferably once a week in accordance with a definite schedule, and at such other times as may be desirable.

More formal conferences, at perhaps quarterly intervals, should be conducted by the Service Staff at which time selected cases of particular forms of cancer should be presented.

Notices of all such conferences should be regularly sent by mail to physicians and dentists in the local and adjacent counties, and their participation in the activities of the Service should be encouraged.

Records. A complete clinical history of each case admitted to the Tumor Diagnostic Service shall be recorded.

A separate filing system of case histories shall be maintained; each case being cross-indexed as to name, number, year, and regional incidence of disease.

The abstract forms prepared by the American College of Surgeons shall be used to record pertinent data on each case, a duplicate of which shall be sent to the State Division of Cancer Control.

Adequate follow-up data shall be included in the record of each case. During the first year after admission to the Tumor Diagnostic Service the patient's condition should be definitely checked at the end of the first, third, sixth, and twelfth months; and thereafter at yearly intervals for not less than five and preferably ten years.

Every cancer patient discharged from the Hospital should be referred to the Tumor Diagnostic Service for follow-up. In private cases, this facility should be offered to the attending physician.

When microscopic examinations of tissue are made by the Service a duplicate slide shall be prepared and sent to the State Division of Cancer Control as a part of the patient's record.

Charges. The facilities of the Service shall be made available to medically indigent patients without charge in every case, provided the patient is certified as such by the referring physician or other authority acceptable to the Hospital.

Tissue Diagnosis. As a supplementary activity of the Tumor Diagnostic Service the local Hospital shall accept specimens of suspected tumor tissue from medically indigent patients submitted by physicians and dentists for microscopic examination and diagnosis.

The physician or dentist shall certify the medical indigency of the patient in each case.

The Hospital shall accept such specimens without restrictions as to geographical source in the State.

A written statement of the diagnosis of such specimens, signed by the Pathologist, shall be sent by the Hospital to the physician or dentist in each case.

A suitably prepared duplicate slide of each specimen examined, together with a copy of the Pathologist's report to the physician or dentist shall be sent to the State Division of Cancer Control.

3. *Springfield Tumor Diagnostic Service.* It was during the summer of 1940 that the radiol-

ogist and the pathologist at the Memorial Hospital expressed the desire to the president of the Staff that a clinic for tumor diagnosis be established at the hospital. The reason for this being that problems for diagnosis presented themselves to these men very frequently and they felt that there was a need for such a service in this community. While plans were being formulated, a letter came from the American College of Surgeons urging us to establish a tumor clinic in the hospital. During October 1940, Dr. Ian G. MacDonald came to the Memorial Hospital and explained the values of group work and outlined the recommended set up for the cancer clinic to the staff of the Memorial Hospital.

The organization of the cancer clinic was perfected, with the president of the staff acting as executive officer. On December 9, 1940, the following letter was sent to every member of the various staffs of the hospital, as well as to all members of the medical profession in Sangamon and surrounding counties.

December 9, 1940

NOTICE TO MEMBERS OF THE CONSULTING, ATTENDING AND ASSOCIATE STAFFS.

This is to notify the members of the staff that a Tumor Clinic conforming to the recommendations of the American College of Surgeons has been established in the Springfield Memorial Hospital.

This Tumor Clinic has been organized for the following purpose: to make available to any and all members of the staffs and any other interested physicians a consultative service for the diagnosis and treatment in every case in which a tumor or the suspicion of a tumor is present. This service will be provided for indigent as well as private patients by a group composed of members of the attending staff including the representatives of various specialties whose cooperative opinion will be given only to the physicians of the patients presented before this body and only as a recommendation. As mentioned above diagnostic as well as therapeutic advice will be given at no charge. Patients will be examined only at the request of a physician. All members of the staff are welcome to participate in the meetings of this body.

The purpose according to a publication of the American College of Surgeons is "by the pooling of the cancer material and the cancer work of a general hospital among such an interested group (Tumor Clinic) an error of judgment of one working alone is apt to be overcome by carefully unhurried presentation of the case to the tumor board. The board deliberates over the many problems of pathology, radiation and surgery presented by the complex case."

The meetings of the Tumor Clinic will take place at 8:30 A.M. on the first and third Tuesday of every month, at the Memorial Hospital. Your cooperation will be appreciated. Communications concerning the Tumor Clinic should be addressed to the Secretary.

The first clinic was held December 17, 1940 at the Memorial Hospital, and continued twice a month thereafter. This Tumor Clinic was a new type of organization in this community, although similar clinics had for a number of years been operating in the middle west and east. It had been established on the recommendation of the American College of Surgeons which considers it a necessary institution in the fight against cancer. The recognition and treatment of Cancer often presents a serious problem which can be more satisfactorily solved by the cooperation of physicians many of whom are particularly experienced in some specialized field of medicine, than by a single physician. No treatments were given in the clinic and patients were examined only at the request of their family physician who then used the advice given by the clinic and arranged for treatment. Private as well as needy patients were examined by the members of the clinic without charge.

The histories, diagnosis and treatments were recorded on the American College of Surgeons cancer record forms.

During July 1941, Dr. Charles A. Woltman, of the American College of Surgeons, conducted a survey of our organization and the conduct of the tumor clinic, which he found very satisfactory.

During August 1941, the State of Illinois Department of Public Health, Division of Cancer Control through Dr. R. V. Brokaw, Chief of that Division, offered to subsidize a clinic in Springfield, Illinois, providing that it was approved by the Sangamon County Medical Society. On September 4, 1941 at the regular monthly meeting of the Sangamon County Medical Society the Society approved the motion that the Tumor Clinic which had been in operation at the Memorial Hospital for the past year be designated to take care of the Tumor Diagnostic Service as outlined by the State of Illinois Division of Cancer Control.

The name of the Tumor Clinic was changed to Tumor Diagnostic Service with the following personnel: pathologist, radiologist, general surgeon, and internist; also representatives of surgical specialties, gynecology, urology, otorhinolaryngology, orthopedics, dermatology, and oral surgery. The clinic is conducted by the Director who is the executive officer, assisted by a Secretary and a Social service worker. The Secretary records the history, physical examination, discussion, diagnosis and recommendations of the staff of the clinic, takes care of the cancer history records, cross files, etc., and a Social worker who is a registered nurse, assists at each clinic session and also does the follow up work.

Since June 1942, it has become necessary to hold weekly sessions of the clinic, because of the increase in number of patients. However patients who come in at other times are taken care of between the regular sessions.

In conducting the clinic, the family physician gives a history of the case. Then the patient is brought in and examined carefully. The patient is taken out of the room. The case is discussed and a diagnosis is arrived at. A Biopsy of all tumors is made before treatment is started for a definite pathological diagnosis as well as for a record of cures later. Any x-ray or laboratory procedures which are indicated are done. After the diagnosis is made the family physician takes the advice and uses it as he sees fit. The patient is still his. The tumor diagnostic service does not treat any patients. At the clinical sessions the group is concerned with investigation and discussion of new cases, observation and specialized care of patients under treatment, and follow up of old cases.

4. *Summary.* The object of these tumor diagnostic services in Illinois is:

A. To make people cancer conscious. To dispel the old attitude toward cancer of fear and hopelessness. Today we know that early cancer is curable if promptly diagnosed and properly treated. The important thing is to detect cancer in its early stages. The real nature of cancer is a wild growth of once apparently normal cells. We need to talk about cancer not to frighten any one, but to encourage him to seek competent professional advice at the first suspicion that something is wrong. If a cancer or malignancy has actually started, treatment may be instituted in ample time to stop this outlaw growth before it becomes too large to be stopped. Two important cancer safe guards:

1. Regular physical examination at least once a year.
2. Learn cancer danger signals.
 a. any persistent lump or thickening especially in the breast.
 b. any irregular bleeding or discharge from any body opening.
 c. any persistent and unexplained indigestion.
 d. any sore that does not heal normally, especially about the tongue, mouth or lips.
 e. any sudden change in the growth of a mole or wart.
 f. do not wait for pain; after pain occurs the cancer may be no longer curable.

Treatment of cancer depends upon two important factors, early discovery and immediate treatment.

There are only three satisfactory methods of treatment at the present time — surgery, radium and x-rays. The use of salves, medicines and serums only menace your future.

B. To provide a group consultation service for the general practitioner in the diagnosis of his suspected tumor cases.

C. To provide a concentration of clinical material for study by specialists in the field of cancer.

D. To collect and record data necessary to determine the end results of treatments.

E. To follow up cases effectively for early detection of possible recurrence of disease.

DISCUSSION

Dr. John A. Wolfer, Chicago: — Mr. Chairman, as Dr. Otten has stated in his paper, I am a member of the Advisory Board to the Division of Cancer Control, Department of Public Health of the State of Illinois, and participated in the various discussions and studies which led to the proposal of this diagnostic service. I can assure you that this commmittee weighed the evidence very carefully and were in thorough accord with the project and felt that it was an extremely judicious thing to follow through.

I might also say that since these diagnostic services have been instituted (and they have been instituted in every case at the request of the local medical

society) not only the local medical society but all the professions in the vicinity have welcomed this service and many other communities have asked for it.

As Dr. Otten has mentioned, there have been several requests which cannot be fulfilled because of the limitation in medical personnel, especially the pathologists. You cannot find one with a fine tooth comb that is free, and we feel that the pathologist is probably the central figure in such a tumor clinic because of his help to the clinician in the study of the pathological specimen.

So if the response to the services that have been instituted so far is a criterion, the venture will be accepted very enthusiastically by the profession throughout the state.

Dr. Otten has alluded to the purpose of this service. A few nights' ago there was opened in Chicago the first of what is to be called a Cancer Prevention Clinic at the Women and Children's Hospital, the staff consisting entirely of women and the patients are to be limited to women. At this opening, Dr. Hektoen made a very terse and rather unusual statement. He stated that cancer in its early stages was one of the easiest diseases to treat and cure that came before the profession. He made that as a final statement, and he said "Put that down in your book," and then he sat down.

I think we all recognize the fact that in many instances early cancer can be cured very easily, while late cancer cannot be cured at all. There should be, therefore, a concerted effort to bring about some setup whereby cancer can be diagnosed early and through which the patient can be given the maximum chance of being cured.

As Dr. Otten further stated, the diagnosis and treatment of cancer is no longer a one-man's job. There have been tremendous advancements made in the treatent and diagnosis of cancer. Being associated with a tumor clinic in Chicago during its entire existence, I am strikingly amazed at the difference in the whole setup today from what it was ten years' ago. I am amazed at the attitude of the people, at the precision of diagnosis, and, likewise, the end results. We see daily cases that are practically given up by their physicians — they are sent in just to be sort of gone over and see what can be done — and yet we find these cases being treated and coming in month after month and year after year; not all made perfectly comfortable, probably not cured, but certainly they are given much more benefit than many heart cases that are treated very carefully and scrupulously by the internists.

So I think the whole setup is for the purpose of procuring early diagnoses. Team work is essential so that we may have the benefit of those that are skilled in the use of the bronchoscope, the gastroscope, and the cystoscope; also the expert radiologist and pathologist. All this leads to early diagnoses.

I think I have nothing more to add. I read with a great deal of pleasure Dr. Otten's paper that he sent me a few days ago. I think he has given a very good description of what is going on. I only want to emphasize in closing this one point: the Health Department is in no wise interested in taking away the practice of Medicine from the doctors of the State of Illinois. It is simply helping the doctors in every one of these institutions. The hospital appoints a staff; that staff runs that diagnostic service. There is absolutely no interference from the Department of Public Health. The only thing the Department of Public Health does is to keep a check because it is giving money to provide for technical help, either secretarial, laboratory, x-ray, or what not.

So be assured that the Department of Public Health is not interested in the practice of Medicine. It is only helping us in the State of Illinois to give our patients better care.

Thank you very much.

Dr. Charles L. Leonard, Rockford: — I must say that Dr. Otten summed up the field of Tumor Diagnostic Service very well. We differ a little in our field in that each town or hospital in which a tumor service is organized must have its own formula or design in order that it meets the will of the doctors and the civilians in that respective community.

We organized our setup in Rockford in 1940, one year previous to the time the state began its work. Our rules and regulations are exactly the same as those outlined by Dr. Otten, with a few exceptions. We have two committees: a cancer consulting committee, composed of the resident Roentgenologist and resident pathologist, and a consultant of the doctor's own choosing. In this way we find that the doctor seeking the information has much more confidence in what the committee has to say, if he has the right to choose a man in whom he has already much confidence.

The other committee is the executive committee, which has charge of the conduct of the clinics, the ethics involved, etc. This is composed of a chairman, a resident Roentgenologist, a resident pathologist, and a member of each of the other two hospitals in Rockford chosen by their respective staffs. In this way we have the support of all the doctors of our community and each group is represented.

We have enjoyed much success in our clinic and have learned a great deal, but we have a long way to go. The young men do not seem to be interested in a setup which is benefiting a community. They are too busy trying to establish themselves.

I do feel that some sort of program should be given in our medical schools that would stimulate the young M.D. to do something towards community welfare, such as immunization, maternal welfare, or, as we have, the tumor diagnostic service. In this way he will sell himself much better than trying to sell himself to any individual patient.

We have good meetings, with much discussion, especially in regard to diagnosis. They are held every second and fourth Tuesday of each month. The

material accumulated is from the men, mostly on our staff. Our attendance averages about ten out of a staff of thirty men, which I think is a pretty good percentage.

We feel that the surface is only scratched in our territory. We want the state to try to notify the various county societies in our territory of our service, and in that way we will be helping our community against a dreaded disease which to my mind is a badly neglected field of medicine.

Thank you.

Dr. Harry E. Mock, Sr., Chicago: — It seems to me that this is an exceedingly fitting time for this magnificent paper to be presented. Lying in his little home in New York is James Ewing, that great teacher and pathologist who, I believe, had more to do with the spread of tumor clinics, tumor groups in this fight against cancer, than any other one man in the country. Today he is a national character whose body is lying in state because of the recognition of his work as set forth in this address and many similar papers. I just could not resist paying this tribute to Dr. Ewing.

ANEMIA IN PREGNANCY

E. Graham Evans, M.D.,

AURORA

From the Department of Obstetrics and Gynecology, University of Illinois College of Medicine

In the course of routine prenatal examination, the emphasis has been largely on the attempt to detect toxemia of pregnancy and very little attention has been given to blood changes. Routine blood examinations are rarely a part of prenatal care and usually are not made at frequent enough intervals to detect the presence of anemia.

Historical: The so called "physiologic anemia of pregnancy" which is not a true anemia but is simply a result of the increase in blood plasma with the associated dilution of red blood cells and the lowering of the hemoglobin in each unit of blood has been observed by many writers. Dieckmann[1] in a series of articles on the normal changes of blood in pregnancy comes to the conclusion that the usual decrease in hemoglobin is about 15% due to physiologic hydremia, and that a concentration of less than 10 grams per 100 cubic centimeters is necessary for the diagnosis of true anemia. Adair and Dieckmann[2] show that 11.6% of their cases showed anemia on these standards while 63.2% fall below the standards for non-pregnant patients. Plass[3] states that repeated examinations showing hemoglobin under 70% and erythrocytes below 3,500,000 indicate true anemia.

Factors Contributing to Anemia in Pregnancy. Foetal demands: As early as 1892 Bunge showed that the livers of full term animals contained about five times as much iron per gram of tissue as adults. This has been presumed to be stored as a supply during the early months when milk, a markedly iron deficient food, is the chief source of nourishment. Other investigations have shown that about two-thirds of the iron supply takes place in the last trimester. The great frequency of anemia in prematures bears out the observation. Coons[4] shows that a total of 0.9 grams of iron must be supplied by the food or iron reserves during pregnancy, or about 3.2 milligrams per day.

Dietary inadequacy: Because of gastric upsets in pregnancy as well as a capricious appetite, there is apt to be a deficient intake of iron even among those patients who can easily afford an adequate diet. Strauss[5] and others have showed that a lowered gastric acidity is frequent in pregnancy and that this resulted in poor utilization of iron.

Clinical Observation. One hundred and seventeen private patients of middle class economic status were studied throughout their pregnancies with hemoglobin and erythrocyte determinations at each prenatal visit and six weeks post-partum. The hemoglobin was observed with a Sahli-Adams hemacytometer standardized at 14.5 grams = 100%. All observations were made by the same technician.

No cases of macrocytic pernicious anemia of pregnancy were found in the present series. This, fortunately, is a very rare but serious complication.

Table 1 shows the average change in the hemoglobin and erythrocytes by lunar months for the entire series of 117 patients as well as the six weeks post-partum determination.

*Presented before the Section on Obstetrics and Gynecology, 102nd Annual Meeting, Illinois State Medical Society, Springfield, May 19, 1942.

TABLE I
Lunar Months

	2	3	4	5	6	7	8	9	10	Post Partum
Hemoglobin %	81.0	79.8	74.7	71.5	67.3	68.8	68.8	71.3	73.0	80.0
Grams per 100 cc.	12.1	11.6	11.2	10.7	9.75	10.0	10.0	10.3	10.6	11.6
RBC	4.58	4.59	4.56	4.20	4.23	4.28	4.29	4.31	4.41	4.87

TABLE II
Lunar Months Gestation

No. of cases	2	3	8	5	6	7	8	9	10
High point	15	24	8	13	4	5	12	19	17
Low point	2	1	2	11	19	18	31	26	7

TABLE III
Fall in Hemoglobin in per cent

	0-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45
Number of cases	5	6	6	16	14	14	7	5	1
Percent of cases	6.7	8.1	8.1	21.6	19	19	9.5	6.7	1.3

TABLE IV
Distribution of Lowest Hemoglobin Levels
Percentage Groups

	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 plus
No. of cases	1	1	15	22	43	20	11	4
Per cent	.86	.86	12.8	18.8	36.8	17.1	9.4	3.8

There is a steady drop in the hemoglobin until the low point of 67.3% (9.75 grams) is reached at the sixth lunar month and then a gradual rise toward term with a return to normal at the six weeks post-partum examination. The erythrocytes show a similar but less marked change with a more marked upswing toward term and an improvement at the post-partum examination. Note that at no time does the average count fall below 4,000,000. The color index at the lowest point is .8 indicative of a hemoglobin deficiency. Unfortunately, the graph does not show the typical changes of the individual case as while some are falling, others are rising the distribution of times when the high and low are reached by individual patients is of interest.

Thus, while the average low was reached at the sixth month, the greatest number of cases, (31) reached their low at the eighth month, but this was offset by 12 cases which reached their high point.

Table 3 shows an analysis of the drop in hemoglobin in 75 cases who were seen in the first trimester and had at least 10 determinations throughout their pregnancy. The average drop in hemoglobin below the level of the first examination was 21.6%. Those who started low made the least fall as treatment was instituted immediately.

One patient in this series whose first hemoglobin determination was 54% made a steady rise but every other case showed a loss.

The lowest level reached by the hemoglobin in the entire series is indicated by Table 4.

From these figures it is found that 87% of the entire series showed a hemoglobin of 69% (10 grams) or less at some time during the pregnancy, although only 3.9% were this low on first examination.

Treatment — Literature: Several authors report marked and immediate response to iron

therapy in the microcytic anemia of pregnancy, although Dieckman[1] calls attention to the marked fluctuation of hemoglobin during pregnancy and cautions against attributing too much to therapy, particularly as a rise toward the end of pregnancy. However, in his untreated series he shows that the hemoglobin still averaged 15% below normal with a normal erythrocyte count at 8 weeks post-partum. Labate,[6] in a controlled series of 325 patients who received 15 grains of ferrous sulphate daily had an average red blood count of 4,090,000 and a hemoglobin of 11.61 grams on admission, while 307 patients who did not receive iron showed 3,010,000 and 8.16 respectively. He also showed a significant reduction in morbidity and hospital days in the treated series.

Present series: All patients with a hemoglobin under 70% were given 15 grains of an enteric coated ferrous sulphate preparation daily. If a significant response was not made, the dosage was increased to 30 grains. This preparation was chosen for its relatively high absorption rate and its infrequency of gastric distress. No controls were used making the results difficult to evaluate, but the average at six weeks post-partum showed a return of the hemoglobin to normal and a moderate increase in the erythrocyte count.

Discussion: The entire picture of blood changes in pregnancy is still confusing. The term "physiologic anemia", due to dilution of the blood, does not explain why some do not develop anemia nor does it explain the response to treatment with simple iron salts in a large percentage of cases. Dieckman[1] cautions about the sudden and marked variations which occur in hemoglobin, cell volume, and erythrocyte counts during pregnancy which may be falsely attributed to therapy. Unfortunately, many reports on anemia have been based on grouping cases on the basis of a single blood count and this present series shows that there is a marked variation in the time of onset of the hemoglobin fall and many examinations are necessary to determine the true incidence. With the amount of iron taken by the foetus, it is certainly reasonable to assume that there should be a depletion of the maternal iron stores. Many investigators have shown there is a lower incidence of morbidity, toxemia and more rapid recovery from blood loss in those patients whose blood levels were normal; therefore, the use of simple iron salts in pregnancy should be a rational procedure.

CONCLUSION

1. Eighty seven per cent of 117 patients studied with hemoglobin and erythrocyte counts at the prenatal visit showed a hemoglobin drop to less than 69% (10 grams) during their pregnancy.

2. Repeated observations of the blood are necessary because of the marked variance in the time of fall.

3. The drop in hemoglobin is out of proportion to the drop in the red blood cells.

4. Use of ferrous sulphate is rational with the return of the blood to its non-pregnant level at six weeks post-partum.

BIBLIOGRAPHY

Acknowledgement is made of technical assistance by Alice Munson, R.T.

1. Dieckmann and Wegner: Arch. Int. Med. 53: 188-207 — 1934.
2. Adair, F. and Dieckmann, W.: Am. Jour. of Ob. and Gyn. 32-560 — 1936.
3. Plass, E. D.: South, Med. Jour. 29: 417-421 — 1936.
4. Coons, J.: Jour. Biolo. Chem. 97: 215-222 — 1932.
5. Strauss, M. B.: J.A.M.A. 102: 281 — 1934.
6. Labate, J. S.: Am. Jour. of Ob. and Gyn. 38: 48-56 — 1939.

DISCUSSION

Dr. John R. Wolff, (Chicago): I would like to compliment Dr. Evans on the character of his presentation and the character of the work itself. Unfortunately I can't quite agree with him on his conclusions that these patients are anemic and that they are in need of iron therapy.

He has presented valuable information in that each case was followed at regular intervals throughout the duration of the pregnancy. The fact that each observation was made with the same apparatus by the same technician lends to the technical accuracy of the work. Anyone who has done any work on blood can readily agree to that.

Dieckmann and Wegner have shown that the blood volume is tremendously increased during pregnancy. Although the plasma content shows the greatest increase, the total amount of hemoglobin and the total number of circulating erythrocytes is greater in the pregnant than in the non-pregnant individual. But because the increase in plasma content is proportionally the greater, the examination of a portion of the peripheral blood will reveal erythrocytes and hemoglobin levels lower than in the non-pregnant state.

This work has been amply confirmed but there are still many who feel as does Dr. Evans, that the fetus

in its demands for iron will parasitically draw on the mother's iron supply and thus produce an iron deficiency anemia. At first glance Dr. Evans' figures would tend to confirm this.

Limarzi and I have been interested in this problem and at the Research and Educational Hospital are now making a study of the bone marrow findings and the peripheral blood during pregnancy. Although this has not yet been completed, our studies of the hemoglobin and erythrocyte levels are similar to those of Dr. Evans.

A drop in the hemoglobin is noted at the fourth lunar month. This gradually proceeds until a low level is reached at the eighth lunar month. The hemoglobin then returns about half-way to normal near term and becomes normal by the fourth to eighth postpartum day unless affected by either hemorrhage or toxemia. The erythrocyte count shows a similar curve but not as great a lowering as with the hemoglobin.

The bone marrow becomes hyperplastic at about the fourth month and remains as such for at least six weeks post-partum.

But none of our cases have received any medication or dietary advice during the course of the pregnancy. They are the controls lacking in Dr. Evans' report.

The author quotes Labate's observations with the use of controls. It has been shown in the non-pregnant individual that the erythrocyte of a normal, healthy adult is not saturated with hemoglobin. Iron therapy given to such individual will raise the hemoglobin level one to two grams. This rise will continue as long as therapy is given but the original level will again be reached as soon as iron medication is discontinued.

I feel that we make a great mistake when we expect the normal blood values of a pregnant woman to be identical with those of a non-pregnant individual. We must realize that profound metabolic and circulatory changes incidental to gestation will alter the status of the circulating elements of the blood. To carefully analyze the need and result of treatment, let us first find out the blood changes that occur during a so-called normal pregnancy.

Since these changes are not apparent before the fourth lunar month, any patient seen before this time presenting a hemoglobin below 80% or an erythrocyte count below four million deserves a complete blood study and appropriate therapy. From the fourth to the ninth lunar month, one should be concerned only when the count falls below three million and the hemoglobin level below 60%. At term three and a half million erythrocytes and 70% hemoglobin are the normal.

My personal observation is that we tend to neglect a true anemia developing immediately postpartum as the result of a blood loss during labor and the puerperium. It is well to check the blood at the eighth postpartum day in all such individuals.

I thank Dr. Evans for asking me to discuss the paper. I hope he will continue his observations on the use with iron and the use without iron.

Thank you.

Dr. E. Graham Evans, (Aurora): I appreciate Dr. Wolff's remarks. It shows, as I told you when I started that there is a lot more to it than appears to the eye. I do not feel that this question of anemia in pregnancy has been settled. As Dr. Wolff has said, there is a great deal of difference in opinion as to actually how much true anemia does develop, but I find here, according to Dr. Wolff's own standards, that is, a hemoglobin of less than 60 per cent, thirty-three and a third per cent of my apparently normal, healthy prenatal patients have anemia, — which is certainly a very high number.

I feel there must be a great deal more work done before this question of the existence of anemia of pregnancy is entirely settled.

I thank Dr. Wolff for coming down and discussing my paper.

THE PHYSIOLOGICAL BASIS OF PARENTERAL FLUID ADMINISTRATION

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CHICAGO

It can probably be said that the enteral administration of fluid is the only truly physiological method; but under certain circumstances, when it is impossible to give fluids by mouth, parenteral fluid administration may be made to approximate physiological intake of fluid if certain fundamentals are kept in mind. These may be considered from two points of view: the circulatory effects of parenteral fluid administration, and the changes in the electrolyte balance. These aspects will be briefly reviewed.

The relation between the two compartments, the plasma and the interstitial fluid, is maintained by the balance between the hydrostatic pressure within the vascular bed, tending to cause transudation of fluid outward, and the osmotic pressure of the protein colloids of the plasma, tending to withdraw fluid from the tissues into the blood stream. This conception of Starling is shown by figures representing the pressures as measured by Landis, drawn on the famous diagram of Gamble's illustrating the relation of the fluid compartments of the body.

From the Department of Pediatrics, University of Chicago.
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It is to be emphasized that the relation represents a dynamic state, and that change in flow in either direction occurs constantly with the changes in capillary flow and pressures, and the plasma volume, and hence the blood volume changes readily. The blood volume accommodates itself to the size of the vascular bed, and this accommodation is secured by the exchange of fluid between the blood and the interstitial fluid compartments, so that if dilatation occurs in one region, there is change in volume, as well as compensatory constriction in another, to make the blood volume and the vascular bed fit one another.

It is necessary to present the factors involved in the normal balance of fluid within the body as a basis for consideration of treatment, since it is a proper balance that is the object of treatment.

The actual values for these compartments may be measured relatively simply. The method consists of injection intra-venously of two substances, one of which will not perfuse out of the vascular compartment, so that the plasma volume may be measured, and one which will readily leave the vascular system and distribute itself throughout the interstitial fluid. The first is a blue dye, and the second is sodium thiocyanate. If you inject a known amount, and then after mixing is allowed, determine the amount in 1cc. of plasma, by dividing one by the other, the amount of plasma and total available fluid may be measured, respectively.

The values for blood volumes of normal children approach 90cc. per kilogram of body weight, and are a little higher in the very young.

The values for total available fluid when related to surface area and weight in kilograms, are quite different. It will be noted that in relation to weight, the total fluid varies between 280 and 320 cc. per kilogram of body weight, slightly higher values being found in the young. The total fluid values are high in edema, and low in dehydration, as might be expected; but it could not be expected that the total fluid would be high in simple malnutrition, or be low in obesity and in infants.

The effect of dehydration on these volumes is to diminish them so that the available fluid within the body, the reserve for the maintenance of blood volume, becomes depleted. While it is probably true that to some extent the plasma volume and hence the blood volume is supported by the interstitial fluid, diminution to any degree of the latter is early associated with diminution of blood volume. This may be stated simply by saying that if fluid loss causing dehydration occurs slowly, the blood volume will be supported and maintained by the interstitial fluid, but if the factors causing dehydration act rapidly, blood volume will be rapidly reduced, and is not maintained by the interstitial fluid. This is shown by the ease with which elevation of the red blood count, and elevation of the plasma proteins occur relatively early in progressive dehydration associated with vomiting or diarrhea. This is more noticeable in infants and can be explained partly by the relatively small extra-cellular fluid volumes in relation to surface area, so that the support offered by this reserve to the maintenance of the blood volume is less.

In acute toxic febrile illnesses, as pneumonia for example, the appearance of a condition resembling circulatory collapse and shock leads sometimes to the casual diagnosis of dehydration. Ebert and Stead have shown, however, that in this so-called medical shock, there is no evidence of diminished blood volume in spite of the decrease in peripheral blood flow and lowered blood pressure. The effect is a general one affecting the entire cardio-vascular system, and it is in similar instances that we are surprised when subcutaneous fluid is poorly absorbed, or intravenous fluid causes no appreciable change in the state of the peripheral blood pressure; there is no dehydration to the degree that clinical examination indicates.

The circulatory effects of fluid administration are slow or rapid, depending of course on the method used, intra-venous or subcutaneous. With intra-venous fluids, the blood volume is restored at once and this is the method of choice in severe dehydration, since with the poor peripheral circulation due to diminished blood volume, subcutaneous fluids will not be readily absorbed, even if the circulation desperately needs them. The recommendation that subcutaneous fluid be given, so that " it can be absorbed as needed" is thus not always a fortunate choice of method.

When hypertonic intra-venous fluid is administered, most frequently hypertonic glucose, there is a rise in the plasma and blood volumes

and a transient increase in venous pressure, as shown by Ellis and Faulkner. In defects in the circulation associated with cardiac failure and venous engorgement, such hypertonic solutions must be given with caution, since it is possible to quickly increase the plasma and blood volumes at the expense of the interstitial fluid.

In such a circumstance, that is, when there is circulatory embarrassment, when fluids or blood must be given intravenously, a simple measure of circulatory distress is elevation of the venous pressure, seen as engorgement of the peripheral veins, or better yet, directly measured. This pressure can be measured accurately and simply with the use of a readily available instrument, the spinal fluid manometer. The arm is abducted away from the body at least 45 degrees, the antecubital space is put at a level midway between the front and back of the chest, the syringe and needle and three-way stop-cock, filled with saline placed on the arm and the needle inserted into the vein; and then if the stopcock is turned so that the manometer is connected with the vein, the venous pressure is read directly in the column of blood in the manometer. The upper limit of normal is 100 mm. of water, and when the venous pressure is above this, or rises during intra-venous administration, or does not drop to the base level, circulatory distress is present. Considerable experience with this in children indicates that it is a valuable adjunct in instances when the competence of the circulation is in doubt.

Changes in the electrolyte equilibrium are usually associated with dehydration and reduction of plasma and fluid volumes. When this diminution is sufficient to reduce renal blood flow, the renal mechanism for compensatory control of the acid-base balance cannot function. This mechanism rests on the fact that electrolytes can be selectively retained by the normally functioning kidney. When retention of base in the plasma is necessary to combat acidosis, acid radicals are then excreted in the urine covered by the ammonium radical synthesized in the kidney; and when excess base is to be excreted in the presence of alkalosis, and it is desirable to conserve chlorides, base is excreted in the urine covered by bicarbonate, which is made readily available by respiratory regulation and retention of carbon dioxide. It is the respiratory regulation of the acid-base balance that gives clinical respiratory symptoms, especially noticeable in acidosis. When the bicarbonate of the blood is reduced in acidosis, the carbonic acid is likewise reduced to compensate for this by increasing the size of the aveolus and reducing the carbon dioxide tension by deep breathing.

In the presence of a normal kidney, where the renal regulation is unimpaired, the defects in fluid volume and in electrolyte equilibrium may be overcome by supplying an abundance of fluid and a neutral electrolyte in the form of normal saline solution. The normal kidney, by means of the mechanism of selective retention of the needed electrolyte, and excretion in the urine of the excess of either sodium or chloride by the mechanism mentioned, establishes a normal acid-base balance. If, in addition, glucose is given, ketosis will be corrected. It is true that electrolytes in excess of amounts that can be managed by the excretory mechanism of the kidney may be inadvertently given. Where laboratories are available, the amount can be controlled by frequent chemical determinations. When these cannot be obtained, it is wise to alternate freely simple solutions containing only glucose and water, for the prevention of edema. This is particularly true in the new-born, where the plasma proteins are usually about the edema level, and excess chlorides quickly establishes edema. Here simple glucose solutions must be given preference.

SUMMARY

1. Blood volumes in normal children are 85-90 cc. per kilogram of body weight; in the obese lower, and in infants higher.
2. The total available fluid values are in the range between 280 to 320 cc. per kilogram of body weight; this is increased in malnutrition, in edema, and is low in the obese and in dehydration, and is low in infants when related to surface area.
3. These volumes are easily reduced in illness, especially when associated with vomiting or diarrhea; and when the blood volume is reduced, the renal control of the acid base balance is interfered with.
4. While the fluid volume may be measured by laboratory methods, clinical estimation of dehydration continues to be difficult. The

weight follows the fluid volumes, and this and the clinical appearance continue to be the only bedside criteria of dehydration available at present.

5. The circulatory and renal function, and electrolyte defects may be restored by parenteral administration or normal saline and 5% glucose. The necessary amount may best be judged by the maintenance of weight, maintenance of moisture in the mouth, and best of all, maintenance of urinary output.

6. In circulatory failure or distress, subcutaneous fluid is not readily absorbed; and when administering intravenous fluid in the presence of circulatory distress, it is wise to follow the venous pressure, which may be simply done.

TECHNIC OF INTRAVENOUS INJECTION IN INFANTS

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Giving a transfusion to an infant is not difficult, if the method and apparatus used are subordinated to the successful insertion of a needle into a vein and maintaining it there. Two technics are available, the less certain method of penetration of the skin and vein with a sharp needle and the more reliable method of exposure of the vein by dissection and entering with a blunt needle.

The first or sharp method appears to be the simpler of the two, but in actual practice it is the more difficult and frequently carries a higher percentage of failure. This varies directly with the skill and experience of the operator.

Various veins have been used for this technic. Of all, the scalp veins are the most commonly employed. These veins usually lying in palpable scalp grooves, can be seen coursing over the baby's head in the temporo-parietal region to form the anterior facial vein above the ear.

After selecting the vein and judging it to be of sufficient size for cannulation, the baby is immobilized by wrapping in a sheet or blanket so that its arms and legs may be effectively controlled and out of the way. It is important to be certain that this has been correctly done and that the restraints are secured by safety pins.

The child is placed on its abdomen or back. The assistant holds the baby's head firmly, one hand over the occiput, the other over the face, care being taken not to interfere with respiration. The operator sits at one end of the operating table with the head towards him.

In this position, the needle can be inserted in the direction of blood flow. The fluid to be given is placed in a gravity container and connected with a short bevel 23 or 24 gauge needle usually ¾ inch long. The needle is slowly pushed thru the skin of the scalp into the vein, great care being taken to stay as superficial as possible to avoid puncturing the opposite vein wall. To facilitate the entrance into the vein, the needle may be fitted to a syringe and after successful entrance as evidenced by aspiration of blood, the glass adapter of the gravity set may be carefully substituted for the syringe or else a Kaufmann-Luer syringe may be used to combine the two steps. The fluid is allowed to run in by gravity. This frequently requires an unusual length of time because of the small bore of the needle. This can be expedited by using a three way stopcock and a five or ten cubic centimeter syringe, blood being aspirated from the container into the syringe and after turning of the stopcock, is injected into the patient.

This sharp method except in the hands of practiced operators is more likely to fail than succeed because of the great difficulty experienced in entering the vein and holding the needle in place.

The second method actually exposes the vein by dissection and then threads it with a blunt needle. The technic is quite simple; but does require strict adherence to detail. The vein most commonly used is the small saphenous found just anterior to the internal malleolus. This vein cannot always be seen; but if it is present it can always be felt by drawing the thumb firmly across its course. If it is present, a characteristic roll or snap is experienced. Unless this vein can be demonstrated by sight or feel no vein will be found on dissection, since it it not always present. After the vein has been

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From the Children's Memorial Hospital and Northwestern University Medical School.

located, the ankle is restrained by taping the foot in external rotation to a padded splint with one inch adhesive tape. The tape is applied to the underside of the splint at the heel side. It passes up and over the heel over the medial aspect of the foot and toes and down and around the underside of the splint around once more to the heel side over the instep and down and around to be secured on the underside of the splint. If this has been correctly done, the foot is firmly bound to the splint. The assistant seated alongside of the baby holds the splint down on the table. This method of holding immobilizes the splint and so the foot.

The site of operation is prepared with iodine and alcohol. The adhesive tape immediately adjacent is also liberally sponged with the solution since it sometimes projects into the field. With the vein's position definitely known, a local anesthetic is injected directly over the center of the vein. The wheal raised obliberates the vein, but the needle mark then acts as a marker, accurately locating the underlying vein.

Two towels are used as sterile drapes. The first laid down so that its lower edge just touches the needle mark and becomes the upper half of the field. The second towel is laid so that its upper edge touches the needle mark and becomes the lower half of the field. The towels are then fixed to the splint with towel clips on either side of the leg. By folding under the edges of the towels over the vein, the small area needed for the transfusion will peep thru. A sharp No. 11 Bard-Parker knife is used to make a small incision transverse to the vein. The incision should be between one eighth and one quarter of an inch long and need never to be any longer. It is made across the course of the vein and directly thru the needle mark so that one-half of the incision lies on either side of it. The vein then lies directly under the center of the incision. The wound is spread with a forceps and the vein is scooped up with an iris forceps. If successfully done, it lies like a shiny pearl ribbon across the forceps. A piece of catgut is passed under the vein by catching it in the free end of the forceps. This is to act as a guy to lift the vein out of the wound. A small opening is cut in the vein wall with the sharp pointed iris scissors after fat and adventitia have been cleaned from it. Thru this opening a blunt No. 22 or No. 20 needle is made to slip into the vein. To secure the needle in position and prevent its being pulled out, a forceps with a notched tip is clamped on the needle catching the vein and needle in its jaws.

With the needle securely in place, the operator may use any method or apparatus to complete the transfusion. At its completion, the vein is not tied off and no sutures are used to close the incision. A tight pressure bandage controls bleeding and allows the skin edges to closely approximate giving eventually a small scar.

If continuous intravenous fluids are to be given, the needle is tied into place with a dermal ligature and the needle and canula are taped securely to the skin of the ankle.

INDICATIONS FOR BLOOD TRANSFUSION AND FOR THE INTRAVENOUS USE OF SALINE AND NUTRIENT SOLUTION

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CHAMPAIGN

The rationale of blood transfusion should be approached from three broad viewpoints as follows: (1) loss of whole blood, or any of its constituents from the circulation, (2) inability on part of the body to supply adequately the constituents of blood, and (3) stimulation and addition of immune substances.

Loss of whole blood or any of its constituents from the circulation includes a wide variety of conditions. It is unnecessary at this time to discuss the reasons for transfusion in cases of acute, massive hemorrhage. First, let us consider the red blood corpuscles. There may be a loss of blood corpuscles within the body such as in acute hemolytic anemia, sicklecell anemia, and Cooley's erythroblastic anemia leading to a severe anemia. Perhaps at this point it might be well to consider those conditions in which the body has lost the ability to supply adequately red blood corpuscles. Nephritis, leukemia, aplastic anemia, and secondary anemia may be mentioned. Secondary anemia deserves considerable comment. Any prolonged illness, be it infectious or

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non-infectious, will lead to secondary anemia. With a reduction in the red blood cells, there is a diminution of the capacity of the blood to transport oxygen. The hematopoetic system makes an effort to compensate for this, but it is likewise affected by this oxygen deficiency. The giving of blood in these conditions is often dramatic. By restoring red corpuscles, the hematopoetic system is given a chance to regain its normal functions.

In regard to white corpuscles, it may be said that replacement therapy is somewhat disappointing. It is a well-known fact that white corpuscles are not increased by transfusion as are red corpuscles. Transfusions are very definitely indicated in aplastic anemia, and agranulocytic angina. However, it is probable that any benefit derived is due to the rest afforded the hematopoetic system, and to the stimulating factor.

Disturbances in the clotting mechanism can best be considered if one remembers that prothrombin, thromboplastin, calcium, and fibrinogen are necessary to produce clotting. Prothrombin deficiency is found in obstructive jaundice, parenchymatous liver damage, and hemorrhagic disease of the new born. The synthesis of prothrombin by the liver depends on the presence of Vitamin K; but if there be severe liver damage, blood transfusion is necessary to supply prothrombin even in the presence of adequate Vitamin K.

Thromboplastin is found in the platelets. Such conditions as primary thrombocytopenic purpura, aplastic anemia, leukemia and possibly hemophilia cause disturbances in platelets. Fibrinogen deficiency is quite rare, but may occur in pellagra, scurvy and severe liver damage. As far as is known, there are no hemorrhagic diseases associated with calcium deficiency alone.

In recent years the importance of blood proteins has been brought to the foreground. Nephritis, extensive burns, traumatic shock and malnutrition are good illustrations of loss of blood proteins. The role of proteins is not well understood. It would seem that there probably exists a balance between the tissue proteins and the blood proteins, much as in case of carbohydrate blood and tissue balance. Colloidal osmotic pressure of the blood seems to be dependent on proteins. For the present, protein deficiency seems best remedied by use of blood plasma, or serum. However, it seems probable that the future holds promise for protein replacement in the form of amino acid combinations, one of which is casein hydrolysate.

Finally, there is no more important indication for blood transfusion than in those cases of severe infections or debilations. The exact mechanism of this procedure is not known, but certainly the stimulating effect is often dramatic. Any infant or child who is not responding well to medical treatment should be considered a candidate for blood transfusions. Pneumonia, mastoiditis, peritonitis, malnutrition and diarrhea are a few of the examples.

In regard to the indications for the use of saline and nutrient fluids one must consider the deficiency from which the child is suffering. If acute dehydration is present, one may use 5% glucose in water or in saline, Ringer's solution or lactate Ringer's solution. If there be loss of electrolytes from the body as in case of diarrhea or dysentery, replacement should be made with saline, or preferably, lactate Ringer's solution. Glucose solutions in 5 or 10% strengths are widely used as nourishing agents in pneumonia, acute rheumatic carditis, and acute liver disease. Glucose seems to have a direct nourishing action on body cells. There is great promise that some day we may have a practical method for intravenous use of proteins. We have need for proteins in cases of malnutrition.

At this point it is wise to correlate the proper indications for all of the fluids which have been discussed. First, the child should be appraised as to its deficiencies, and secondly, we should try to give these various solutions in their proper sequence. By way of illustration, let us consider extensive burns. In cases of burns there is loss of blood protein from the blood to the tissue fluids with a resultant hemoconcentration. The proper fluid to administer in this instance is blood plasma or serum. Whole blood, glucose or saline solutions are contraindicated. Another illustration is dehydration associated with diarrhea. In this condition, loss of water and electrolytes from the body is the important factor. The proper fluid to be used is saline or lactate Ringer's, followed by blood transfusion for its stimulating effect. I feel that if one studies the problem at hand in detail and realizes what deficiencies are present, one can readily determine the indications for fluids and, most important, their proper sequence.

THE PARENTERAL ADMINISTRATION OF VARIOUS THERAPEUTIC AGENTS

Orville Barbour, M.D.
AND
Robert Dean Hart, M.D.
PEORIA

Some therapeutic agents must be administered parenterally to be effective. Under certain conditions, it becomes advisable or necessary to administer parenterally, medications which are ordinarily adequately effective by mouth. In this discussion, the writers will review the various therapeutic preparations which are generally accepted for parenteral treatment, and those various methods of, and indications for this type of therapy whose usefulness and dependability clinical experience has well proven.

INTRADERMAL TESTS

By the intradermal administration of certain sera one may evaluate the body's response or lack of response to specific allergins and thus indicate or not the need for prophylactic therapy.

The Schick Test. With the mother or assistant holding the child grasp the forearm firmly with the left hand and spread the cleansed skin moderately tight between the thumb and index finger. With the other hand holding the syringe, bring the needle parallel to the skin and in line with the arm. Slide the needle point along the skin until the point catches, enters the epidermis and the bevel just disappears from view. Inject .1 of the Schick material causing a small wheal to rise which rapidly disappears. If the test is positive at the end of the forty-eight hours, a brownish area of approximately 1 cm. or larger appears which may persist one to ten weeks before it fades. A red area around the needle scar which disappears in twenty-four to forty-eight hours, indicates merely a sensitiveness to the sera, not a lack of immunity to the diphtheria toxin. The Schick test should be performed six months after the active immunizations, at the end of succeeding five year intervals, and also with an exposure to diphtheria.

The Dick Test is given in the same manner and amount into the forearm. The reaction appears in eight to twelve hours and should be read between eighteen and twenty-four hours after injection. It is positive if there is even a slight redness or flushing of an area 1 cm. or more in diameter. There is a direct correlation of the degree of reaction and the sensitivity of the patient. This test is of value for diagnostic purposes. The Dick test is positive for the first three days of scarlet fever, so that a Dick test done when a suspicious looking rash is first seen that on second test three days later is negative is a certain diagnostic criteria. Also a child exposed to scarlet fever who has a decided reaction to the test can be given prophylactic antiserum or convalescent serum, whereas the negative or weakly positive reactors may await the onset of illness before treatment is begun.

The Schultz-Charlton Reaction. Pick the point where the rash in question is most marked, usually the thighs or abdomen, inject intradermally .1 cc of the material one would use for active treatment of the condition. This may be human convalescent serum or scarlet fever antitoxin. If an area of blanching over 1 cm. occurs six to twelve hours later, two things are established. First that the patient has scarlet fever and second that the human convalescent serum or the scarlet fever antitoxin, whichever was used, will be effective in treatment.

Tuberculin Test. Sensitization to tuberculosis may be tested by intradermal injection of .1 cc of 1-10,000 dilution of old tuberculin followed if this is negative by 1-1,000 old tuberculin. A positive test means only that the patient has been sensitized to tuberculosis and further information must be obtained by x-ray studies and guinea pig innoculations of urine or pus pockets. In known active tuberculosis the tuberculin test is contra-indicated, first because it may light up a latent area of infection and second because in a highly sensitized person a terrific reaction and local slough is quite apt to occur. It is well to remember that a patient overwhelmed by tuberculosis — as is often seen in a tuberculosis meningitis — a sensitivity to the tubercle bacilli is not present and the child dying with the overwhelming infection will give a negative test. Although its relative accuracy is still questioned, one may choose to use the patch test.

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Serum Reactions. There are certain special sensitivity tests beyond the scope of this paper. These are primarily the specific allergy tests. However, it behooves every practitioner to know and make use of the sensitivity tests for horse serum and rabbit serum when using foreign proteins as is necessary in pneumonia, tetanus antitoxin and in influenzal meningitis. With these one should have a syringe of adrenalin available and give a preliminary skin test dose.

Smallpox Vaccination. Vaccination is a modified intradermal injection administration. It is generally considered better to vaccinate high on the arm over the deltoid muscle. Cleanse the arm with soap and water followed by alcohol and ether to dry. Place the drop of fresh virus which must have been kept in a cool place, on the arm and holding the point of the needle parallel to the arm press the point into the skin through the drop ten to twenty times. This is done in an area not to exceed two millimeters in diameter. Use no bandage. If done properly with active vaccine adequately preserved every patient should get a take, an accelerated take or an immune reaction. Every child should be vaccinated against smallpox during the first year of life, each succeeding six years, and if exposed to the disease.

SUBCUTANEOUS THERAPY

Subcutaneously there are surprisingly few commonly used medications. The active ones are:

Whooping Cough Immunization. This should be given in three injections at three or four week intervals, beginning at six or eight months of age. The writers have found it practical to give these injections at the time of the sixth, seventh, and eighth month's physical check-up examinations. The amounts administered are 1 cc, 2 cc, and 2 cc of the double strength vaccine. This supplies a total of 90,000 millions killed bacilli. It is our policy to give the vaccine as superficially as possible even to giving some intercutaneously and slowly give the rest deeper in the more yielding tissue. Occasionally a patient may have a mild febrile reaction with some pain. This usually responds promptly and satisfactorily to one or two grains of acetylsalicylic acid, repeated at two hour intervals if indicated.

Diphtheria Immunization. The alum precipitated toxoid is given at 3 to 4 week intervals. The writers start the ninth month and give three injections — .5 cc at nine months; 1 cc at ten months and 1.5 cc at eleven months. This material should be given deep subcutaneously or even intramuscularly. It is a good plan to caution the parents that a lump may persist for several months which eventually disappears; this may be due to the formation of a sterile abscess and may leave a superficial scar or dimple at the site of the injection. Since the alum diphtheria-tetanus toxoid has become accepted, it is our practice to thus combine the immunization to diphtheria and tetanus.

Tetanus Antitoxin. We have given this to all patients with dirty wounds and with wounds occurring where the cutting object has been exposed to street or barnyard dirt. The dose is at least 1500 units (one prophylactic dose) given subcutaneously. A serum sensitization skin should be made beforehand. If the child has received tetanus toxoid the antitoxin is unnecessary. If two years have elapsed since active immunization a ½ cc stimulating dose of tetanus toxoid is given.

Typhoid Immunization. Typhoid vaccine is given in instances of possible water contamination as, for vacations, in disasters or in outbreaks. Three subcutaneous doses of .5cc, 1 cc, and 1 cc are used at three week intervals.

Vitamin K falls in the domain of obstetrics in which the mother is given 1 cc of vitamin K prior to childbirth. Occasionally a cephalahematoma occurs in a newborn and it happens that in all cases we have seen the mother either had received the vitamin K just before delivery or the medication has been omitted. The classic response is in the hemorrhagic disease of the newborn where absence of vitamin K is the etiological factor and replacement is followed by recovery.

HORMONE THERAPY

Insulin needs mentioning to recall the case of protamine zinc with its slow absorbing characteristics and the newer crystaline insulin that absorbs a little faster than protamine. The crystaline insulin may be utilized with the protamine zinc for the twenty-four hour diabetic control giving the two materials at one time of the day.

Suprarenal Extract. The little understood suprarenal extract we believe will play an increasing part as time progresses. Certain newborns as well as young infants who seem to lack the desire to eat, are dehydrated and have no apparent pathology, often respond remarkably well to subcutaneous administration of ½ cc of suprarenal extract every four hours. This seems to maintain over a longer period the temporary effects attained by administration of epenephrin.

Anterior Pituitary Hormone is valuable in the treatment of the endocrine deficient obese child.

Anterior Pituitarylike Sex Hormone from pregnancy urine is used in the initial treatment of undescended testicles in Frohlich's syndrome in genital hypoplasia and in selected instances of hypomenorrhea or amenorrhea.

DRUGS

Sodium Phenobarbital hypodermically is useful in certain cases, particularly those with persistent convulsions or vomiting. The dosage is approximately one-half of the oral one, generally ¾ gr. to 1½ gr. with frequent repetitions as needed.

Morphine is rarely indicated and is usually contraindicated in pediatric practice.

Atropine is now seldom given hypodermically to children. In cases of laryngeo trachco bronchitis it is definitely and positively contraindicated.

Codeine. Hypodermic injections of codeine are of value with older children for control of severe pain and preoperatively. It is our impression that smaller repeated doses of ⅛ gr. or ¼ gr. are less apt to produce untoward reactions than are larger doses at longer intervals.

Epinephrine, Caffine Sodium Benzoate and Coramine have their places as stimulants.

INTRAMUSCULAR THERAPY

Diphtheria Antitoxin divides into three classes. The non-immunized or known Schick positive contact with diphtheria should receive passive immunization of 1000 units of diphtheria antitoxin intramuscularly. The mild case of diphtheria — that is one with a tonsillar or laryngeal diphtheria without the bull neck — should receive 20,000 units of diphtheria antitoxin intramuscularly. Suspect cases are often overdosed and get a rather severe serum sickness from too much antitoxin. In the severe diphtheria cases 40,000 units is usually adequate and over 60,000 units is a waste of material. The main factor is to give early administration of antitoxin in a small dose not waiting for culture reports. Give the antitoxin in the lateral aspects of the thighs. This is the least painful area. Warm the antitoxin to body temperature being careful not to destroy it with too much heat.

In Scarlet Fever Therapy, the active treatment depends on available material and may be human convalescent serum given by intravenous route (discussed later) or scarlet fever antitoxin intramuscularly. As Dr. Hoyne of Chicago once said, "How do you know on the spur of the moment what dose of antitoxin to prescribe?" Perhaps the exact dose has been forgotten. He says prescribe "one therapeutic dose" which in this case is 9000 units given intramuscularly and repeat in twenty-four hours if necessary.

In Measles Therapy the treatment has one of two aims, either to temporarily completely protect a sick and dibilitated patient or to modify the disease of a normal patient after exposure. In the complete protection no immunity is attained, in the partial protection immunity with a mild case of measles is the aim. For complete protection either 10 cc of convalescent serum, 40 cc of whole blood or 5 to 7 cc of immune globulin given intramuscularly one or two days after exposure is usually adequate. For partial protection give 5 cc of convalescent serum, 20 cc of whole blood or 2 to 5 cc of immune globulin within the first six days.

Bismuth intramuscularly is of value in connection with oral stovarsal in the treatment of syphilis in children. The exact procedure is too intricate to permit discussion here.

Liver Therapy is often an adjunct to the treatment of profound anemias, given intramuscularly.

INTRAVENOUS THERAPY

Blood intramuscularly was referred to above. It was previously quite popular and is still valuable. In newborns it gives some protection and has some therapeutic value. However, where blood is indicated with present methods intravenous blood is preferable. For the seriously ill child small repeated transfusions of 75 cc

to 150 cc of fresh citrated whole blood not only yield many specific antibodies but also give the general tonic value of a transfusion.

Drugs

Sodium Sulphathiazole Sesquehydrate is one of the extremely important intravenous medications. With vomiting, overwhelming sepsis, coma, or with oral medications contraindicated, it becomes necessary to give the treatment by vein. We may say that in any severe bacterial infection where the tissue has been invaded, but not destroyed this drug may be used. Some have said that Sulphathiazol is not excreted in the spinal fluid, however the work of one of us (R.H.) has consistently shown that the spinal fluid concentration is about one-half that of the blood concentration. This seems to be sufficient to bring about the desired therapeutic results. The technique of administration was splendidly discussed in a prior paper. The amount to be administered varies with the size of the patient and the severity of the infection. One may start with one or two grains per pound of body weight per day. With the intravenous treatment one should give one-half the total first days concentration and then dividing the total days dose into four administrations, allow two hours for each fractional medication and inject them at four hour intervals. The drug concentration of the solution should be between 2% and 5%. This may be gotten by dissolving 15.4 grains or 1 gram of the material in 50 cc of triple distilled water.

After the medication has been given for eighteen to twenty-four hours, the continuation of therapy depends on several factors:

1. The blood concentration. In a severe infection this should be between 7 and 14 mgm. percent and the dosage varied according to the level.

2. The response of the patient. An improving patient may need a lower level or may be able to take the drug by mouth.

3. The urine examination. This may show albumin, casts, blood or crystals or very rarely annuria may occur. Then the clinical picture needs reviewing as to the possible cause of the urinary symptoms. At least one daily urine examination should be required.

4. The blood count. A rapidly falling white blood count, going below normal indicates a need for caution, although a falling red count is more an indication for transfusing the patient than for discontinuing the drug. A marked Schilling shift to the left is an indication to discontinue the drug.

5. The fluid intake by vein. Dr. C. Anderson Aldrich has cautioned again and again about giving too much intravenous fluid. The maximum total fluid intake of the patient should not exceed three ounces per pound per day. Overhydration is easily done when one considers that blood transfusions and glucose may be given between the medications, plus the fluids in the medication plus the oral intake. Therefore the administration should be slow, measured and carefully watched.

Sodium Sulphadiazene is recently available and is said to be as effective as the other sulfonamides with less untoward reactions. However, for the present, except for its occasional untoward reactions, it is our impression that sodium sulphathiazole seems usually more effective therapeutically than does sodium sulphadiazene.

Sodium Sulphapyridine is a dangerous drug in that it excretes slowly and crystals form easily in the kidney tubules leading to hematuria and albuminuria. Hence with this drug the blood and urine should be watched even closer with perhaps two urine specimens daily as well as the daily blood concentration of sulphapyridine. In spite of this danger we believe it advisable to use this drug in pneumococcic meningitis and influenzal meningitis. We have had some satisfactory results with the sulphapyridine alone in this latter disease; with the additional use of Type B-Haemophilus influenza antiserum as prepared from rabbits by Alexander perhaps the results are even more successful.

Sulphanilamide is soluble only to the extent of .8 to 1%. This concentration makes it necessary therefore to dissolve it in normal saline. All the other sulfonamide groups are dissolved in distilled water and should neither be mixed with saline nor with glucose solution.

Magnesium Sulphate Like Hypertonic Glucose is utilized in dehydrating the tissues and thus relieving cerebral pressure. These drugs are used in treating severe head injuries and severe lasting convulsions.

Serums

Serums given intravenously are either human or animal. The animal serums are usually rabbit or horse.

The Anti-Pneumonia Serum provided by the State is a rabbit serum. Its administration is not without anaphylactic reactions. Pneumonia serum is seldom indicated in uncomplicated pneumonias, however in pneumonococcic meningitis and pneumonoccic septicemia, the antiserum as well as the sulfonamides are indicated. The drug should be started immediately. Then as directed on each package do the skin or ocular sensitivity tests followed by an injection of 2 cc of test serum and follow this by 100,000 units of the specific antipneumonia serum. Dilute the serum with 500 cc of normal saline as a further precaution. Give this 500 cc mixture by drip at forty to fifty drops per minute. An open ampule of adrenalin should be available at all times.

The Alexander Anti-Haemophilus Influenza Serum just discussed comes in 25 mgm. ampules of powder. The powder is dissolved in normal saline. The same precautions should be followed as with the administration of anti-pneumonia serum.

For Meningococcic Meningitis the treatment has changed in recent years. In the Chicago Municipal Contagious Hospital it has been customary to treat such cases with meningococcus antitoxin 50,000 units to 100,000 units dissolved in 500 to 1000 cc. of 10% glucose in saline with 5 to 15 mgm. of epinephrin added. However lately the treatment has been superceded by the use of the sulfonamide drugs. At one time one of us (R. H.) had a case responding well to the use of sulphanilamide as had been started outside, a second to sulphathiazole as had been started outside, and a third with sulphadiazene as used by us in the hospital with apparently equally good results. One point — any case with petechiae and meningeal symptoms should be considered meningicoccic meningitis until verified by spinal tap.

In Scarlet Fever, already discussed from the standpoint of diagnosis and active treatment with antiserum, the preferable active treatment if it is available, is the injection of 20 to 40 cc of convalescent pooled serum intravenously in complicated or severe cases. The disease generally subsides as if by magic and the course is so changed that one wonders at the simplicity of the disease. Occasionally the serum is not adequate or needs repeating. The serum however, will not undo damage already done. Even with this apparent return to normal the two weeks of convalescence with bed rest is necessary to avoid later complications. Early in scarlet fever the sulphonamides have surprisingly little effect although they aid considerably in combating the complications.

Intraspinal Medications are no longer deemed advisable. It is our opinion that spinal taps should be done for diagnosis only and should be repeated only if there is doubt as to the patients condition or progress. The majority of our meningitis cases receive but one diagnostic spinal puncture.

SUMMARY

This paper is a resume of the useful and dependable types of parenteral therapy. It includes the generally accepted common methods, indications and interpretations used in the administration of the various types of therapeutic agents.

The intradermal, subcutaneous, intramuscular, intravenous and intraspinal routes of medication have each been discussed as clinically used by the pediatrician.

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DISCUSSIONS ON PAPERS OF
DRS. CASSELS, SPIVEK, MCKINNEY, BARBOUR
AND HART

Dr. F. W. Schlutz, Chicago: Dr. Cassels has given us a very fine clear analysis of the processes which underlie the intravenous use of various physiologic fluids. They are not always safe to use in all cases and they are not always indicated in all cases where you may clinically think they are. There are simple laboratory methods available to practitioners which would enable them to check with simple devices the measurement of venous pressure. One of these methods is the determination of the CO_2 of the blood. This gives a good deal of information in cases showing marked electrolyte loss.

In small infants and in prematures, we use glucose solution almost entirely at the University of Chicago Clinics. As Dr. Cassels pointed out, in premature

infants the protein concentration of the body fluids is so near the edema level that when you use anything else you are likely to run into edema.

Dr. Spivek mentioned the sequences in giving these fluids. Whether you should give plasma first or electrolytes first depends upon the condition you are dealing with. In cases of diarrhea it is our custom if there is much vomiting to give Ringer's solution followed by glucose, then frequently follow with sodium chloride or blood transfusion. This may be altered if alkalosis or acidosis is in the picture, but on the other hand, in burns it should be plasma first and then other solutions. It is important to follow that order. Except for replacement in case of hemorrhage, I think we have to be cautious in the amount of blood we use. In our clinic we are inclined more to use a small amount in blood transfusions, never exceeding 20 cc per kilo. It can be very dangerous. I am old enough to go back to the time when blood transfusions were hardly ever given. I remember a few instances where colleagues — with the best intentions in the world — gave infants 10 or 12 months old as much as 300 cc of blood, with fatal results in a few hours. You have to be careful.

Another thing I would warn against is careful selection and appraisal of the donor. I recall a solitary experience where blood was given to a two year old child from the father. In this case it was disastrous. It developed that the father had malignant peripheral arthritis, and the child developed this same condition a few weeks after the transfusion and is now a completely crippled child. I have always felt that the child in the transfusion got the thing his father had. Careful consideration must be given to the donor. We use transfusions of blood a great deal in many conditions. We have found it particularly useful in advanced cases of malnutrition. It is well to give small repeated transfusions. They seem to bring the case back better than anything I know of.

The other thing that is spectacular is the use of transfusions in severe or malignant infections, whether alone or in combination with sulfonamid therapy. We used to use transfusions with fluid intravenously, but nothing is so spectacular as the combination of the use of the sulfonamids with frequent small blood transfusions; in cases of pneumonia, laryngotracheobronchitis, and malignant sore throat. I believe the good results are due to a combination of that treatment.

We have been a little hesitant in transfusions in renal conditions, such as nephritis and nephrosis. Blood transfusions have not been so successful in these conditions as in the other conditions referred to. I think the proper use of intravenous fluids of the various types mentioned, in the proper amount and at the proper time, are really one of the greatest advances we have made in pediatric therapy. It is my impression that nothing we have had in the past has been so successful and definitely effective.

Dr. W. L. Crawford, Rockford: I have enjoyed this symposium very much, and I think we have been very well informed by the essayists. I had hoped that someone would talk about bone marrow infusion. The opportunity for its use does not come up often. I have not used it, but have been amazed at how fast it can be administered, especially in cases of prolonged illness or burns, and if someone has had some experience in this I would appreciate their comment.

I think Dr. Spivek covered a lot of territory. I do not know whether he mentioned this point. I have recently seen a nerve injury from a rather tightly bandaged leg, and I am sure he would caution you about that, if you are going to keep a cannula in for some time, and it is sometimes a question how long you can keep them in for repeated small transfusions that Dr. Schlutz spoke about.

I am interested in Dr. McKinney's references to casein digestives. I think a lot of research work has accumulated on amino acids, not only enterally but parenterally as well. I have used this a number of times, but have not had courage to use it intravenously as yet. Hartman in a recent article gave a number of cases in which he had used it intravenously and commented that many had reactions. I went over the cases and in everyone that was reported it seemed to me there was shown quite marked reaction to administration of casein.

Dr. Robert A. Black, Chicago: I am old enough to reminisce and will try to stay in the last few years. I think I enjoyed Dr. Fell's paper as much as anything I have heard. I definitely feel that this is a surgical procedure. It belongs to the pediatrician. We are trying to break into puberty and this is one place where we are trying to break into surgery. It belongs to surgery; it needs a lot of judgment as to when, how and what to do. It seems to me that as days have gone by and I have become half way efficient, I have stopped some of my subcutaneous work. If you do not have hospital facilities at hand, and particularly internes and residents, you get over-ambitious when you do not intend it.

It is dangerous, there is no question. In Iowa they had seven deaths, and some man in Massachusetts reported two deaths which he was not able to account for, although they were probably typed and cross-typed. I think we have only to look around Chicago — St. Luke's with 7,000 cases without any untoward incidents; .4 per cent in Mercy in 2,500 cases; these figures of course are not accurate. I think this is because pediatricians depend on skill and ability to select the kind of transfusion to be given.

Personally I am favorably disposed to plasma. It is easy to administer, no typing is required, and there is not so much reaction as with blood. When the red count is below two million blood should be used, but in burns or shock, with all the factors entering into shock, there is a good deal of fluid in the intercellular spaces, I think the use of plasma will be almost the same as blood, without as much reaction. Certainly in

infectious diseases like pneumonia, falling blood pressure or rising hemoglobin should make you feel that small doses of blood transfusion would be most beneficial.

It is my own practice when they do not respond well to the sulfonamide drugs, to use small transfusions, every day or every other day; doses of 50 cc. I am confident it has a very beneficial effect. I feel we have opened up, as Dr. Schlutz said, a most potent therapeutic measure. We sometimes get the wrong slant. It is easy to remember the spectacular successes, and the ones which turned out bad, but the ones for which you did not do much pass out of mind.

I wonder if you have used any ascetic fluid. I see in adults they are using that.

Dr. G. M. Cline, Bloomington: This afternoon we have heard how transfusions are done in Chicago, especially on infants. I would like to reminisce a little and tell how I have struggled with the transfusion problem in a small community during the last twenty years. In fact, I have done several transfusions and intravenous injections in farm homes, with the use of kerosene lamps and even pencil size flash lights, with one helper, my nurse. I am proud to say I have saved several babies with these procedures, however, the worries I have endured during the process can never be measured.

After locating in Bloomington about twenty years ago, Dr. Victor Lespinasse was reported to be giving a demonstration transfusion on an infant to the Doctors of Chicago at Mercy hospital. Unfortunately, I missed this. My first trials were purely trials with the Vincent tube with a rubber tube and cannula attachments. I believe the third attempt was fairly successful. Later with the aid of a very enthusiastic salesman, dressed as a Doctor, I did a successful transfusion with a newly purchased Scannell outfit. Later these cannulas opened the way to more and better transfusions. Since then I feel I have come a long way and now with modifications of the Spivek method, boasting a little, I will take my place with the most of them as to size, speed and results.

Perhaps I can add a few points of value as to the technique worked out by myself. A couple of years ago my good friend Dr. Robert A. Black, while visiting in my city, witnessed my doing a transfusion. We all know that after we reach the age of forty, it so often happens that even with bifocals our vision is unsatisfactory. After dissecting out the vein the eye strain of inserting the needle into the tiny vein was quite a problem until my office associate, an ophthalmologist, suggested that I use his illuminated loupe with its powerful magnifying lens. With this apparatus the vein literally looks as big as your finger. You can't miss. It was a pleasure to show my former teacher "the easy road" to cannula insertion. Remember this point, especially you older men, invest in an illuminated loupe, the kind the eye men use, and your problem will be much simpler. I have on several occasions easily inserted cannulas in prematures, as small as two pounds in weight, when previously my eyes couldn't take it. The electric lighted loupe is the only light you need, as a rule, for the entire operation.

My second largest problem was strapping down the infant so that I could leave the cannula inserted; the solution running; and only nurses to watch the patient so I could be sure the apparatus would continue to work, the solution removed, and the ankle dressed. We have no internes in Bloomington hospitals.

Small doses of a sedative by rectum naturally helps this problem. Tying the cannula in position is very important and, secondly, tying the extremities (tight) to boards and the bed, have to be done right in this case. My own method of restraint may vary some from your ideas but the results count. Care in the beginning makes the difference between success and failure.

I also am an advocate of blood plasma. If you as pediatricians have your own blood bank, you will never want to be without one. I have from two to four quarts of liquid plasma on hand at all times. A close bacteriological check is necessarily most important.

The value of pooled blood is well known, hence the same story is true of plasma. I also have been fortunate to keep pooled convalescent scarlet fever plasma. The collecting and care of this plasma takes time. I have spent a good many Sunday mornings in the hospital keeping the bank replenished. The donors are fairly easy to get at the time you draw blood for your whole blood transfusion by getting several to donate, telling them you will use the one that cross matches. Also when I give a patient a blood plasma transfusion I charge them for the work and ask them to furnish me with enough whole blood to replace the plasma used in their child. Of course, serology tests, fasting blood, and healthy donors are important. I find most people willing to help their baby or someone else's baby.

Blood plasma also is so convenient and valuable subcutaneously, especially for little prematures who need proteins and blood coagulants. Here the supervising nurse can readily give 10cc daily under the skin, under your direction.

Pooled plasma is valuable to have on hand at all times in infectious diseases or diarrhoeas. A year ago I had a family quarantined fifty miles away with scarlet fever. Two of the children were in isolation in our hospital with hemorrhagic nephritis. In one the hemorrhage was massive. Plasma in the middle of the night as an emergency measure saved the life. In some instances I have had to use my own supply on charity cases, thereby saving a life, without myself or the hospital having to pay the bill for commercial plasma.

In whole blood and plasma transfusions I feel we still must pay more attention to selection of donors who are free from allergic diseases. Blood should be taken from the patient with fasting stomach.

In conclusion, I again, as I have for years, want to advocate more use of extra oral fluids in infancy

and childhood diseases. A proper technique of administration of extra oral fluids is not difficult to master.

We are indebted to the essayist for his very valuable procedure and technique so well described.

Dr. W. M. Larson, Stockton: I would like to ask for comment along the line of reactions due to transfusions. We are told that most reactions are due to faulty technic and lack of care of the apparatus. Why are most reactions in whole blood and so few in plasma, which is handled more than citrated blood? Of course I am assuming that the blood has been typed and cross-matched.

Dr. Maurice Blatt, Chicago: The R.H. factor plays a part in many of these reactions. The number in postpartum women is far in excess of those in other patients and this plus erythroblastosis fetalis, icterus gravis and hydrops fetalis are believed to follow the development of sensitivity to this factor. Individuals with glomerulonephritis after repeated transfusions frequently have violent reactions time after time. Some similar sensitivity in the factor in these reactions.

Dr. Hart's use of 1,000 cc of diphtheria antitoxin is not desirable. With our present methods of diagnosis, diphtheria may be speedily recognized by smear and immunity by the blood antoxine level and Schick test. One should avoid giving prophylactic doses so as not to sensitize the individual to horse serum. If given, the dose should be at least 5000 units but there is no justification for its use in a city where the child can be watched from day to day.

The research on pertussis hyper-immune rabbit serum is being concluded. The results when used as a prophylaxis in treatment of the actual disease and in several instances in post-pertussis pneumonia have been surprisingly good.

I think this presentation has been very unusual and the statistical display has been very instructive.

In the case of premature infants, I routinely use the blood of pregnant women and give it intramuscularly. I believe that if the premature were in the uterus where it belongs, it would be getting hormones from its mother. We use the blood of another expectant mother to supply this need. Our mortality in 540 prematures was 19.25 per cent in 1941 including those who came in dead and we believe these small and repeated injections of blood from a pregnant woman is important.

Dr. Donald E. Cassels, Chicago (closing): I would like to emphasize what Dr. Blatt has said, and I believe the time is coming when transfusion reactions on an allergic basis will be considered more important, and that no transfusions will be given without the determination of sub-groups.

Dr. Mandel L. Spivek, Chicago (closing): I want to thank the discussors who have said so many kind things about this technic.

Dr. Crawford asked about bone marrow transfusions. That is a difficult thing for me to talk about. Transfusions can be given by perforating the cortex of the bone and giving it in bone marrow; that has been demonstrated. In the author's own description of the method, he lists a high percentage of failures in the infant. Until that is remedied by a change in technic, I do not think it is important unless as a last resort.

In restraining a baby's legs I have been opposed to putting a band around the upper part of the leg. It results frequently in stopping the intravenous drip, and if a baby cries it raises the intravenous pressure to such a height that it stops. If you press the peroneal nerve against the splint you get a permanent type of paralysis.

Dr. Cline spoke of the electric loupe. I have not used it, but I think it is a swell stunt and maybe when I am presbyopic I will use this. When the transfusion is done in the hospital or dressing room it takes only a short time and it is unnecessary to tie a child down. But when continuous intravenous drip is given it is essential that all movement be restrained, especially movements of the hands, because they will reach down and pull it out. When there is a needle in a baby's vein all four extremities should be restrained.

Dr. James D. McKinney, Champaign (closing): In his enthusiasm for giving blood transfusions one should not overdo the procedure. Often good results are obtained by giving a few transfusions rather than a large number. Many times the red blood count may increase above normal, usually indicating that further transfusions are not needed at the time.

Dr. Robert D. Hart, Peoria (closing): With reference to diphtheria innoculations of 100 units, often the outbreaks occur in the underprivileged classes. When there are ten children in one family exposed to and on the verge of coming down with diphtheria at the time the Public Health officer or the doctor is called in, a working method is necessary. One may be able to get all the family together at once and maybe not again. This may obviate another outbreak. With 1000 units we believe the bad effect from horse serum is outbalanced by the fact that the outbreak is checked.

NEW SYNTHETIC FEMALE SEX HORMONE

A new synthetic female sex hormone, octofollin, is effective in the treatment of female climacteric or change in life and appears to be relatively nontoxic in contrast to diethylstilbestrol, another synthetic female sex hormone which has been in use lately, according to the statements in two reports in *The Journal of the American Medical Association* for October 2. Alvin Ray Hufford, M.D., Grand Rapids, Mich., from the results he obtained in treating 21 women, says octofollin, when administered by injection into a muscle, was effective and nontoxic. Harold K. Roberts, M.D.; Ellen Loeffel, M.D., and Cyril M. MacBryde, M.D., St. Louis, obtained similar results in 44 women treated. They administered it by mouth.

Only female mosquitoes bite to suck blood; the males get all their nourishment from plant sap.—*Science News Letter*

Clinicopathologic Conferences

J. J. Moore, M.D., Department Editor.

PRESENTATION OF CASES BY
MARION C. CORRIGAN, M.D.
and WILLIAM BRAMS, M.D.
Michael Reese Hospital
CHICAGO

CASE 1 — AMYLOID CONTRACTED KIDNEY

Dr. William Brams: B. M., a female patient 24 years old, admitted to Michael Reese Hospital, states that she had been well until her pregnancy, 18 months before. At that time her blood pressure was found to be elevated. The course of the pregnancy was stormy and was terminated, near term, by Cesarean section. Since then she had had severe headaches, and for the past month, nausea and vomiting. She lost 25 lbs. in weight, was very thirsty and recently noted palpitation, dyspnea on exertion and nocturia.

Past History: The patient had had scarlet fever, swollen cervical glands and bronchitis as a child and osteomyelitis of the right hip with suppuration at the age of 11. Repeated operations, during the next three years, resulted in fusion of the right hip and shortening of the limb. Some form of kidney trouble with edema and ascites developed at the age of 17.

Physical examination: Many operative scars were noted at the right hip. Blood pressure 215/140 was more or less fixed at this level on repeated examination. Examination of eye grounds showed indistinct discs and some retinal hemorrhages. Cardiac dullness was enlarged downwards and to the left, and the aortic second sound was markedly accentuated. The electrocardiogram showed very low T waves in all limb leads. X-ray of the lumbar region showed the kidneys to be of normal size and shape but no dye could be seen in the renal pelvis after intravenous pyelograms. The congo red test was negative twice. The blood chemistry showed: N.P.N. 66 and Urea Nitrogen 43. Moderate secondary anemia was present. The specific gravity of the urine was 1.010. A few white blood cells and casts and variable amounts of albumin were present.

The impression was that the patient had chronic glomerulonephritis with impending uremia. Some association was believed to exist between the renal disease and the previous osteomyelitis. The patient remained in the hospital until she was improved, after which she was discharged. She was readmitted about one month later with fever, cough and dyspnea of one week's duration. Examination revealed dyspnea, cyanosis, pallor, crepitant rales on both sides, blood pressure 220/158, and the above mentioned findings of the previous admission. It appeared that bilateral bronchopneumonia had developed. The blood nitrogen retention increased, stupor, and edema of the face developed, vision became worse and a to and fro pericardial friction rub could be heard. The patient became worse rapidly and died several days after admission.

DISCUSSION

It is apparent that this patient was in uremia. Fixation of the specific gravity of the urine speaks for inability of the kidney to concentrate. The variable amounts of albumin with only a few casts and pus cells and with *a good urinary output* speak for renal failure with an attempt

to eliminate toxic products by excessive volume output rather than by concentration. It is more difficult to assign a cause for this renal failure. The pátient had had scarlet fever and some form renal disease seven years ago. Recent observations, extending over many years, have shown that nephritis due to scarlet fever usually results in complete recovery. Yet it is possible that this was an exception and that glomerulonephritis developed which became chronic. We cannot overlook the possible significance of the chronic suppurative osteomyelitis which was present from the age of 11 to 14. This could easily result in *amyloidosis of the kidney* giving rise to a clinical picture closely resembling chronic glomerulonephritis. The Congo red test for amyloidosis is of value only when positive; a negative result does not exclude amyloidosis. The renal condition, severe as it was, was apparently well tolerated until the patient became pregnant. It is known that chronic renal disease and hypertension are frequently tolerated poorly during pregnancy, and that the renal condition may be greatly aggravated. This seems to have been the case here. The final blow was given by the pulmonary infection, resulting in rapidly progressive renal failure, intensification of uremia and death.

The clinical impression is: Uremia due to renal failure. Renal failure may possibly have been due to chronic glomerulonephritis but chronic amyloidosis of the kidney must be suspected very strongly on the basis of chronic tuberculosus osteomyelitis. Pregnancy proved a burden which the diseased kidneys could not tolerate, and final renal defeat was precipitated by pulmonary infection, resulting in intensification of the uremia and death.

Pertinent post-mortem findings: (Dr. Otto Saphir). The body was that of a fairly well-developed, rather emaciated white women, apparently about twenty-five years of age, measuring 165 cms. and weighing about 42 kg. The skin was ivory white, the lips and fingernail beds moderately cyanotic. There was slight edema of the face but none of the extremities. The right leg was about 5 cms. shorter than the left. In the region of the right hip and thigh and of the left shoulder and arm, were many irregular scars and keloids (residua of old fistulous tracts). An old midline abdominal incision measured 20 cms.

In the peritoneal cavity beneath this incision and between the omentum and the uterus were a few fibrous adhesions (old cesarean section). The right pleural cavity was almost completely obliterated by old fibrous adhesions. The pericardial sac contained about 150 cc. of a serohemorrhagic fluid.

The kidneys together weighed 160 gms. They were very firm, markedly reduced in size and identical. Their thickened capsules were stripped with some difficulty revealing irregularly, finely granular yellow-red surfaces. On the surfaces made by cutting the cortico-medullary markings were indistinct, the cortex markedly reduced in thickness. The parenchyma was reddish-yellow. The pelves were relatively large, the ureters normal. The bladder exhibited a few hemorrhagic mucosal areas in the vicinity of the trigone. These gross features were readily explained on microscopic examination which revealed most of the glomeruli to be converted into relatively acellular and avascular eosinophilic masses. (Figure 1). Others, less extensively involved, had thickened capsules or capsules adherent to tufts. The glomerular capillaries were markedly thickened and fibrotic. A few glomeruli were large and hypertrophic, their capillaries apparently permeable. The arteries were moderately thickened, the arterioles markedly thickened (Figure 2), their lumina narrowed.

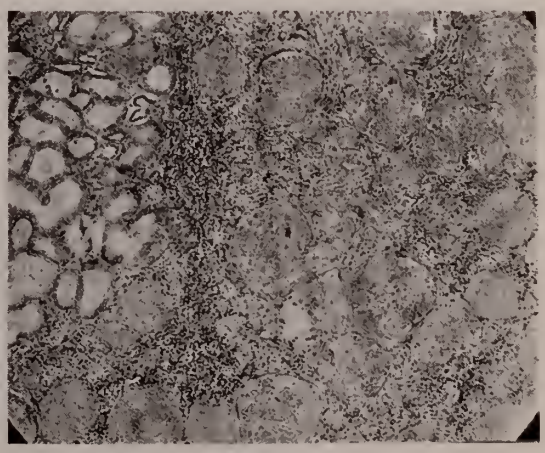


Figure 1. Case 1. Kidney. Note the transformation of the glomeruli into hyalin-like balls. Special stains reveal that the hyalin-like material is amyloid. (Hematoxylin-Eosin preparation).

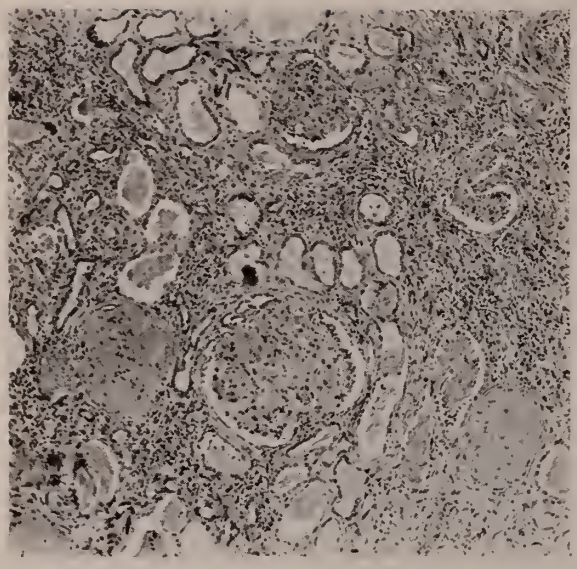


Figure 2. Case 1. Kidney. Note the early changes in the glomeruli, principally the deposition of the hyalin-like material surrounding the capillaries of the glomerulus. (Hematoxylin-Eosin preparation).

The tubules exhibited severe parenchymatous degeneration, and frequently contained hyaline casts. The eosinophilic material outlined the tubules in many instances. The interstitial tissue was increased, infiltrated by round cells and frequently isolated atrophic tubules. (Figure 3). Iodine and methyl-violet showed the eosinophilic material, which was in subintimal situation in capillaries and arterioles and under the tubular basement membranes, to be amyloid.

The pericardium was dull and covered in both the visceral and parietal leaves by a granular and fibrinosanguinous material. The enlarged, very firm heart weighed 475 gms. The chambers were only slightly dilated but the walls were markedly hypertrophied, that of the left ventricle measuring 2.1 cms., that of the right measuring up to 0.5 cms. The valves were normal. The reddish brown myocardium was seen on microscopic examination to be composed of markedly hypertrophied fibers with some parenchymatous degeneration. In a few foci they were replaced by fibrous connective tissue which was moderately increased in both perivascular and interstitial locations. The markedly thickened pericardium was vascularized and covered by masses of fibrin infiltrated by histiocytes, plasma cells and lymphocytes. The coronary arteries were slightly sclerotic, their distribution of the right predominant type. The aorta exhibited slight atheromatous changes throughout, most marked in its abdominal portion.

The right lung weighed 450 gms. In the apex was a retracted fibrous and calcified lesion. Fibrous adhesions bound the lobes to each other. The left lung weighed 475 gms. The upper lobes of both lungs were crepitant and emphysematous. The lower lobes were irregularly

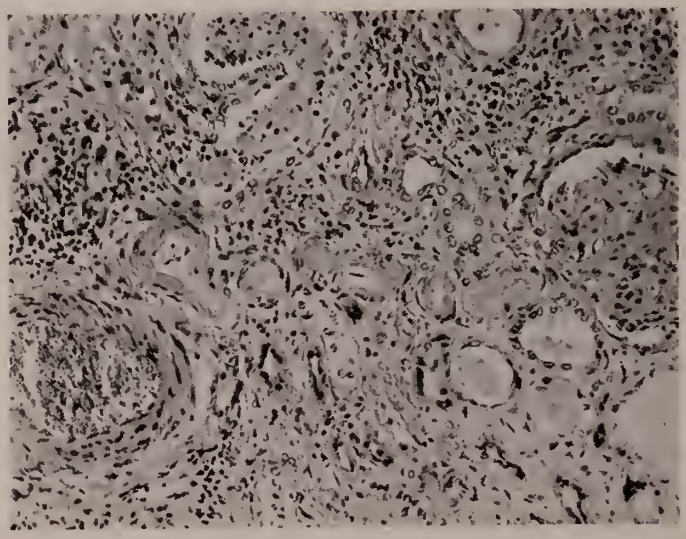


Figure 3. Case 1. Kidney. Note the thick walls of the small arteries. (Hematoxylin-Eosin preparation).

firm, very moist, and contained areas of bronchopneumonia.

The swollen fatty liver weighed 2250 gms. On microscopic examination, chronic passive hyperemia and parenchymatous degeneration were revealed.

The enlarged spleen weighed 325 gms. The pulp was scraped with ease. Whereas grossly, the pathology was merely that of acute splenic hyperplasia, microscopically, amyloid was revealed in the Malpighian corpuscles. Amyloid was likewise present as small and sparse deposits in the suprarenals.

There was some edema and hyperemia of the mucosa of the intestines, most marked in the terminal ileum and ascending colon. These changes, if features of uremia, were minimal.

The fallopian tubes were non-patent; the small uterus contained fibrous adhesions at the sight of a scar — cesarean. Other organs showed no changes.

The pathologic diagnosis was: Amyloid contracted kidneys; hypertrophy of the heart (marked); acute fibrinohemorrhagic pericarditis (uremic); hemorrhagic cystitis (uremic); edema and hyperemia of the mucosa of the gastro-intestinal tract; acute bronchopneumonia of the lower lobes; acute hyperlasia of the spleen with amyloidosis; healed apical tuberculosis; adhesive fibrous pleuritis, right; shortening of right lower extremity (history of tuberculous osteomyelitis of right hip); keloid scars in the regions of the right hip and left shoulder; old surgical abdominal incision (for cesarean section and sterilization).

Summary: At the age of 17 the first signs of renal impairment were those of a nephrosis. Some six years later, at the age of 22, coincidental with a pregnancy, this patient had marked hypertension, and terminally, at the age of 24, pneumonia precipitated uremia. At autopsy the finding of amyloidotic contracted kidneys and a fibrinosanguinous pericarditis substantiated the diagnosis of uremia due to renal failure. Bronchopneumonia involved both lower pulmonary lobes.

The hypertension was readily explained by the vascular alterations involving arterioles and gloreruli of the kidneys. Evidence of an old tuberculous process in the lungs and bones revealed the etiologic agent for amyloidosis. In that tuberculosis, especially of an "inactive or afebrile variety" had been present, the finding of amyloidosis in this young adult is not rare. However, for amyloidosis to produce a contracted kidney with cardiac hypertrophy and hypertension is rare. Only three such instances were found among the autopsy material of Michael Reese Hospital. Two of these had had marked hypertension. The adrenals in the third presented severe amyloid replacement, adrenal insufficiency probably accounting for the lack of hypertension. This, the fourth, is one of those "occasional instances of renal amyloidosis in which a definite hypertension developed that is presumably due to amyloid which causes narrowing of the glomerular capillaries and the arterioles of the kidney." (Bell).

CASE 2 — COR PULMONALE

Dr. William Brams: M. F., a female 59 years old, had had marked kyphoscoliosis since early childhood, but otherwise was in good health until 4 years ago. Since then she had experienced several attacks of weakness, insomnia, dyspnea, palpitation and orthopnea. A more severe attack occurred shortly before admission, at which time edema of the feet and legs was observed.

Past history: There was no history of rheumatism or tuberculosis.

Physcial examination: A dwarfed patient with marked kyphoscoliosis to the right. The temperature was 98°, pulse rate 104, respiration 30, and blood pressure 145/85. Crepitant rales were present at both bases. The heart was displaced to the right but no murmurs or arrhythmia were heard. The edge of the liver was 2 finger-breadths below the costal arch. Edema was marked in both lower limbs.

Laboratory findings: Blood serology, chemistry, and count were normal. Urine was normal. The electrocardiogram showed low QRS in all limb leads with inversion of T in leads 2, 3 and 4. Another curve taken several days later showed short periods of paroxysmal tachycardia caused by ventricular extrasystoles.

Course: Bed rest, digitalis, quinidine and sedatives failed to provide relief. She took a sudden turn for the worse several days after admission. Dyspnea increased markedly, blood pressure fell to 85/65, cyanosis became deeper,

and pneumonia was suspected. There were now drooping of the left corner of the mouth, thick speech, and periods of stupor. She became progressively worse, paroxysmal tachycardia developed, and she died about one week after the abrupt turn for the worse.

DISCUSSION

Patients with marked kyphoscoliosis seldom survive beyond 45 or 50 years of age. Death is usually due to cardiac failure but, what might be called "pulmonary failure" plays a very important role. Both the cardiac and pulmonary difficulties are still reversible in the earlier stages if suitable orthopedic treatment can correct the chest deformity.

The convexity in marked kyphoscoliosis is unusually to the right which means that the left side of the chest is markedly compressed, resulting in minimal respiratory excursion of this side, and displacement of the heart to the right with some kinking of the large vessels. The right side shows pulmonary emphysema with large alveoli but atrophy of their walls and reduction of the vascular bed. Bronchitis and bronchiectasis are usually present and interfere with gas exchange in the lungs by producing excessive secretion in the alveoli and finer bronchioles. The frequent and incessant coughing spells add to the strain on the right side of the heart. The total volume of the lungs is very small; often infantile. It can readily be seen that pulmonary difficulties are marked as a result of the almost rigid, small chest; infantile sized lungs and chronic inflammatory changes due to chronic bronchitis and bronchiectasis. All of these provide burdens on the right side of the heart which hypertrophies to maintain its efficiency in the face of these obstacles. Poor ventilation and other factors result in coronary sclerosis, a very frequent complication in kyphoscoliosis. Eventually the burden becomes too great, the heart fails, all its reserve is used up, recovery is incomplete or of short duration and the patient dies of a combination of pulmonary failure, coronary sclerosis and irreversible myocardial failure.

The clinical impression is: Marked kyphoscliosis, small lungs, compression of lungs in some areas, emphysema in others, and chronic bronchitis and bronchiectasis and terminal pneumonia. To these must be added coronary sclerosis, myocardial degeneration and failure. The mental symptoms could be due to cerebral anoxemia from cardiac failure or to intercurrent cerebral complications.

Pertinent post-mortem findings: (Dr. Otto Saphir). The body was that of a poorly developed and poorly nourished white woman appearing to be about 60 years old, measuring 135 cms. in length and weighing approximately 38 kgms. The thoracic cage was markedly deformed because of a distortion of the spine. This presented a right convex kyphoscoliosis of the thoracic vertebrae and a left convex scoliosis of the lumbar vertebrae. Both scolioses were very marked and at an acute angle. The skull was rather large in proportion to the size of the body. No other bone deformity was noted. There was marked cyanosis of the lips, ears and nailbeds. The finger tips were enlarged and clubbed. A two plus edema of the ankles was present.

The abdominal cavity was small, the pelvis rather deep. The pleural cavities were small and empty. A few fibrous adhesions bound the upper lobe of the right lung to the thorax. The left pleural cavity, however was much larger than the right. The heart was displaced to the right. The serous surfaces were smooth and glistening.

The heart weighed 250 gms. It was markedly enlarged in its right portion and rather firm. The right chambers, especially the ventricle, were dilated. The myocardium was definitely hypertrophied, that of the right ventricle measuring up to 0.5 cm. and of the left, 1.3 cm. in thickness. The coronary ostia were patent, the arteries severely sclerotic and narrowed, especially within the first few centimeters of their aortic origin. The distribution was of the right predominant type. The myocardium was red-brown, occasionally streaked with white. On microscopic examination, hypertrophied myocardial fibers were noted beneath a thick subepicardial fat layer in the right ventricle. There was some increase of interstitial fibrous connective tissue. This, however, was more prominent in sections from the left ventricle. Hypertrophy was very conspicuous in sections from the right atrium. Intercalated discs were conspicuous. The aorta showed a moderate arteriosclerosis throughout with many atheromatous plaques in the abdominal portion.

The lungs were soft and emphysematous. Emphysematous bullae were scattered along the

margins of the anterior surfaces. On sections made by cutting, there was moderate hyperemia of the lower lobes which were firmer than the slate grey, more billowy upper lobes. The trachea and bronchi were filled with mucus. The branches of the pulmonary artery were slightly thickened. Microscopic examination confirmed the gross impression of emphysema with marked compression of alveolar capillaries and some arteriosclerosis.

The liver weighed 675 gms., the kidneys 200 gms. Both showed marked chronic passive hyperemia and parenchymatous degeneration. All the organs were abnormally small but with the above exceptions were normal.

The pathologic diagnosis was: Kyphoscoliosis of the vertebral column; marked deformity of the chest; pulmonary emphysema; hypertrophy of the right ventricle (cor pulmonale); severe coronary sclerosis; myocardial fibrous (slight); chronic passive hyperemia of the lungs, liver and kidneys; cloudy swelling and atrophy of the liver.

Summary: This 59 year old white woman had had a very marked kyphoscoliosis since early childhood, most probably on the basis of severe rickets. Despite the deformity of the thoracic cage this patient was in good health until four years before admission when she developed symptoms of "heart failure" which gradually increased.

An interval of four years elapsed between the first manifestation of so-called "heart failure" and death. The symptoms of the "heart failure" were largely respiratory — dyspnea, orthopnea, insomnia, (palpitation). In view of the length of the interval preceding death, the diagnosis of heart failure at that time might be questioned. White considers such symptoms, "often wrongly interpreted as early failure", to be due to the underlying disease, which in this instance was emphysema with some pulmonary sclerosis.

Here "cor pulmonale" was the result of long-standing thoracic deformity, productive of an emphysema which probably was initially compensatory. Compression of the pulmonary capillaries increased the pulmonary pressure and induced the cardiac hypertrophy. Death in this instance was due to congestive failure provoked not by any intercurrent infection but by senescent alterations in the blood vessels and myocardium. Death from congestive heart failure in cor pulmonale is somewhat unusual, the majority of the casualities being from the pulmonary disease and at an earlier age. The relative longevity of this patient is remarkable, as pointed out by Dr. Brams.

LIVING TWINS BORN TO A WOMAN WITH A DOUBLE WOMB

Although more than 100 cases of women having two wombs and several instances of pregnancies involving one or both of such wombs have been reported in medical literature, Major Alexander Braze, Medical Corps, Army of the United States, reports in *The Journal of the American Medical Association* for October 23 what is believed to be the first instance of a successful termination of simultaneous pregnancies of double wombs with living infants. In the case reported by him, one baby was a boy and the other a girl. The twins were normal and were living at the time the report was made.

There is another aspect of the educational influence of the health services. We have finally found that there is no use opening the doors of American schools and then crying out that we are offering free education to all on the same terms, if many of our children come to these schools so ill-fed, so ill-housed and so ill-cared for that they are unable to profit from the instruction which is given to them. Equality of opportunity means equal opportunity to live up to what you have. This equality of opportunity is denied to many of the children who attend our schools. There is definitely a difference of function between the health service and those of other agencies. When children who are attending our schools require better food, when they require adequate clothing, and when they require medical or surgical attention, it is proper for the schools to recognize that such services are the primary function of other agencies. It is essential that every means be brought to bear to see that these children receive attention from appropriate sources. That is the way of democracy. But the way of humanity demands that when all other avenues have been explored and there is no other means to correct the defects which a child possesses, then the school services should be privileged to undertake this action. Realism demands that the children be given their chance no matter what agency may be primarily responsible for it. John L. Bracken, Supt. of Schools, Clayton, Mo. Jour. School Health, Nov. 1942.

★ **BUY ANOTHER BOND** ★

Industrial Health

Committee On Industrial Health — Frederick W. Slobe, Chm., 2024 South Western Ave., Chicago, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington, Milton H. Kronenberg.

STANDING ORDERS FOR NURSES IN INDUSTRY.*

It has long been held essential that an industrial nurse have standing orders available. The Council on Industrial Health of the American Medical Association has prepared an excellent booklet covering this subject. This booklet is so worthwhile that we are publishing it in full in this section.

Obviously such standing orders must be general in their scope and for this reason, treatment is not considered in detail. It is for the plant physician to supplement these standing orders with more specific instructions.

For some time the medical and nursing professions have been concerned about the employment of nurses in industry without adequate medical supervision. The Council on Industrial Health has therefore been requested to formulate standing orders for industrial nurses which can be adapted to meet the requirements of individual industrial medical departments. If no responsible industrial medical authority exists, it is recommended that the nurse request helpful instruction in this regard from the committee on industrial health of the appropriate county or state medical society.

GENERAL RELATIONSHIPS

Standing orders represent a preliminary understanding between physician and assisting personnel about routine conduct of a medical service. In establishing such orders in an industrial medical department, several considerations need to be borne in mind:

1. The greater the amount of personal supervision exercised by the physician directly in the industrial environment, the better is the industrial health service.
2. Standing orders cannot be written to meet every situation likely to arise in industry. They must be modified to meet specific requirements and in accordance with the training and professional competence of the assisting personnel. They should be signed by the supervising medical authority and posted prominently in the medical department.
3. The nurse in industry should assume no responsibility for service outside the field of her professional training. This applies particularly to individual case management, from which the nurse should rigidly abstain except:
 (a) In emergencies demanding immediate independent judgment and action.
 (b) Procedures of preliminary or first aid nature routinely required by reason of the nature of the work and which are clearly stipulated in the standing orders.

This statement confines itself mainly to these last named aspects of mediconursing relations in industry. Additional reports on other functions of industrial nurses will follow as needed.

EMERGENCY PROCEDURE IN INDUSTRY

General principles which operate in all emergency situations apply to industry as well. They are:

1. Call a physician immediately.
2. Stop bleeding.
3. Restore breathing.
4. Prevent shock and infection.
5. Do no more than is actually needed.

The supervising physician should assure himself that these instructions are thoroughly understood and should institute special training when necessary. Nurses in industry should qualify as first aid instructors.

Emergency Supplies. — Emergency packs with essential sterile supplies should be available at all times in the medical department and in first aid kits suitably located throughout the plant. Regular inspection is necessary.

Hemorrhage. — Bleeding calls for immediate attention. The nurse should notify the physician and, until he arrives, proceed as follows:

1. Expose the wound.
2. Remove obvious foreign matter.
3. Apply pressure.

Direct manual or bandage pressure firmly applied over sterile gauze packing at the bleeding site will effectively control moderate hemorrhage. Indirect compression is indicated in excessive bleeding not controllable by direct methods. Digital compressions over

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the vessel against underlying structures either adjacent to the wound or at the nearest pressure point will usually suffice until the physician arrives. Indirect pressure should be applied proximal or distal to the wound, in keeping with the arterial or venous character of the bleeding. Hemostats or clamps should be applied whenever the emergency warrants it.

Avoid applying a tourniquet if possible. If severe bleeding in an extremity suggests the use of a tourniquet, apply a blood pressure cuff.

The nurse should remember that:

1. A direct pressure bandage should not act as a tourniquet.
2. A tourniquet must be periodically released at least every fifteen minutes.
3. No dressing should be applied over a tourniquet.
4. Asepis must be observed at all times.

Asphyxia. — Cessation of breathing from any cause demands:

1. Artificial respiration *at once* and *at the site of the accident.*
2. Notification of the physician.
3. Maintenance of body warmth. Avoid excessive heating.

All industrial nurses should demonstrate ability to apply artificial respiration by the prone pressure method and should realize the need for its continuous application until breathing is restored or until careful repeated medical examination advises otherwise.

Shock. — Early and adequate shock treatment is life saving. Do not delay.

Common symptoms of shock following injury are pallor, perspiration and rapid thready pulse. Emergency management by the nurse should include:

1. Notification of the physician.
2. Removal of cause. If shock is due to hemorrhage, control it. If it is due to trauma not associated with bleeding, all active treatment of injury should be deferred until shock management has been instituted. Wounds should be covered with sterile dressings to prevent infection.
3. Relief of pain: 1/6 to ¼ grain (0.010 to 0.016 Gm.) of morphine sulfate, repeated if necessary, or barbiturates as routinely ordered except in injuries to the head or trunk.
4. Keeping the patient warm, dry, and on his back with his head low. Avoid overheating.

ROUTINE NURSING CARE OF INJURIES

Successful medical management of industrial injuries depends on:

1. Prompt treatment.
2. Meticulous cleansing and dressing.
3. Examination of deep as well as superficial structures.

To accomplish these aims the routine functions of the nurse should be confined to care of minor wounds as follows:

1. Protect wound with sterile gauze while adjacent area is cleansed with soap and water or solvent.
2. Discard protective dressing and clean wound margins.
3. Irrigate wound with sterile water or isotonic solution of sodium chloride.
4. Apply antiseptic of physician's choice.
5. Apply dry sterile dressing, interfering as little as possible with function. Sterile dressings should be covered with protective material for use at work. The worker should be instructed not to remove the dressing but to return to the medical department if it becomes loosened or uncomfortable.

The nurse should do no more than is actually needed. The following conditions require direct medical supervision:

1. Wounds requiring débridement.
2. Those with obvious or suspected involvement of deep structures.
3. Wounds with edges which do not approximate.
4. Wounds about the head and face.
5. Contaminated wounds requiring tetanus prophylaxis.

Management of Common Injuries.—Injuries most likely to be encountered in industry include the following conditions:

1. Abrasions: Clean and apply dry dressing. Extensive or deep loss of skin, especially about the fingers and hands, needs medical attention.
2. Contusions: Treat with cold compresses directly following injury, later with moist heat. If soreness or disability persists or if deep involvement is suspected, refer to the physician.
3. Lacerations: Clean and apply dressing as directed. Any possibility of injury to joints, nerves or tendons should be brought to the physician's attention at once.
4. Puncture Wounds: Puncture wounds through the skin need direct medical supervision to avoid or treat severe infection. If superficial, clean and apply sterile dressing.
5. Slivers and Splinters: Penetration through the skin by slivers or splinters always carries the risk of an infected puncture wound and should be treated as such. Those lodged superficially and easily removed without added trauma or incision may be extracted aseptically by the nurse.
6. Burns and Scalds: Clean minor burns with soap and water. Apply petrolatum or 5 per cent boric acid ointment, bandaging firmly without interfering with function. Leave blisters alone.

 In all other cases:

 (a) Notify the physician.

 (b) Cover the burned area with a sterile dressing or sheet moistened with isotonic solution of sodium chloride or 5 per cent sodium bicarbonate solution.

 (c) Combat pain and shock.

In the absence of specific orders, chemical burns should be treated by irrigation or immersion in water for at least twenty minutes and then by dressing.

7. Sprains and Strains: Treat first with cold compresses, elevation of the part and rest. A physician's advice is necessary regarding strapping, other methods of support or fixation, further examination or special therapy.

FRACTURES

Preliminary steps for the nurse are:

1. Call a physician at once.
2. Keep the patient quiet and warm.
3. Immobilize before any movement is attempted.
4. Do not attempt reduction.
5. If the fracture is compounded, cover the site of the fracture with a dry sterile dressing. *Do not cleanse or reduce.*

Special instruction in splinting should be provided every industrial nurse.

EYE INJURIES

Rigid aseptic technic must be scrupulously observed in all eye conditions. Never attend consecutive patients without sterilization of instruments and careful hand washing. Remember that early symptoms of infections simulate foreign body.

Minor Burns.—Do not apply ointments to minor burns of the skin about the eye. Apply a sterile dressing and refer to the physician.

Burns of the Eye.—1. Chemical Burns: Irrigate chemical burns of the eye *copiously* and *at once* with water, preferably by immersion. Neutralizing solutions are usually inadequate or unavailable. The rapidity with which the irrigation occurs is more important than the type of solution used. Continue to irrigate at least twenty minutes by the clock.

2. Hot Metal Burns: Apply a sterile pad and refer at once to the physician. Do not irrigate. An anesthetic should be applied as ordered by the doctor.

Every burn of the eye should receive competent medical attention early.

Foreign Bodies.—The nurse should attempt to remove only those foreign bodies of the eye which can be readily located and which can be easily washed out or removed with a dry sterile cotton applicator. An antiseptic may be applied if the physician so orders.

Direct medical care is essential:

1. If the foreign body cannot readily be located. Stains to aid in the location of foreign bodies should be used only on specific medical order.
2. If removal requires any instrumentation.
3. If irritation or pain persists after removal.

No person with an eye injury should be discharged without examination by a physician.

"Flash" Injury.—First aid treatment should include:

1. Local anesthetic as ordered.
2. Cold compresses.
3. Sedatives.

Persistent pain following flash needs medical examination and treatment.

Conjunctivitis.—Conjunctivitis or other forms or conjunctival irritation should be referred routinely to the physician or ophthalmologist.

HEAD INJURIES

Until the physician takes over, the nurse should:

1. Keep the patient lying down.
2. Elevate the head.
3. Apply ice cap or cold compress. *No sedatives.*
4. Record pulse and respiration every ten minutes.

Clip or shave and cleanse areas adjacent to scalp lacerations, and cover with a sterile pad.

CHEST AND ABDOMINAL INJURIES

Contusions of the chest and abdomen with or without external evidence of injury may result in trauma to underlying organs.

Until seen by the physician, such patients must be

1. Kept warm and quiet.
2. Allowed no sedatives.
3. Have pulse, temperature and respiration recorded frequently.
4. Suitably bandaged to avoid contamination.

In case of abdominal injury give nothing by mouth.

NONOCCUPATIONAL ILLNESS

Treatment of injury or illness which has no relation to occupation is not a function of the industrial medical department except:

1. First aid for emergency sickness. Such measures as the situation demands must be taken until notification of the family physician discharges responsibility.
2. For minor ailments which temporarily interfere with an employee's comfort or ability to complete a shift and for the relief of which a physician would not ordinarily be consulted.

In all relationships of this kind, judgment and tact are required of the industrial nurse. Several principles apply:

1. Before giving any treatment, the temperature, pulse, general appearance and a history of the presenting complaint should be recorded.
2. Palliative treatment, especially for chronic or recurring disorders, should not be repeated.

Every properly trained nurse understands the difference between attention of this kind and systematic treatment.

CARE OF MINOR ILLNESS AND SYMPTOMS

Persisent or augmenting symptoms of irritation, discomfort or disability suggest faulty work environment. The nurse should not hesitate to ask for medical examination of workers and of the premises.

Fever.—A rise in temperature of 1 degree suggests medical consultation before work is resumed. Findings should be checked by repeated thermometer recordings.

Headache.—Record temperature. If headache is accompanied by dizziness, nausea, vomiting, stiff neck, injury, history of recurrence, fever, general malaise or other symptoms the patient needs medical attention. If not, give an analgesic as ordered by the physician.

Remember that headache or dizziness may be premonitory signs of intoxication.

Unconsciousness.—Fainting. Usual symptoms are pallor, with shallow breathing, slow and weak pulse. Period of unconsciousness is of short duration.

Keep the patient lying down with head lowered until fully recovered. Be sure the patient has plenty of

fresh air. Clothing should be loosened and stimulating inhalants used, such as ammonia or smelling salts.

2. Other causes. If other signs are present or if unconsciousness persists longer than a few minutes, call for medical assistance. *Give nothing by mouth.*

Toothache.—If there is a cavity, the nurse may pack it with cotton dipped in oil of cloves for temporary relief. For further examination and treatment refer to a dentist.

Nosebleed.—Spontaneous nosebleed may be treated by cold packs or pinching the sides of the nose against the septum. Keep the patient sitting erect or standing and loosen the collar if it tends to constrict the neck. Advise the patient not to breathe or blow through the nose for an hour or two after bleeding has stopped.

Bear in mind that certain occupational exposures are manifested by nasal damage and bleeding.

Sore Throat.—Patients with sore throat may be given a hot saline gargle if they have a normal temperature. Do not "paint" the throat. Any persistent sore throat or one associated with fever needs medical care at home.

Respiratory Irritation or Infection.—Repeated or persistent signs of bronchial or chest irritation without associated infection suggests an unfavorable occupational exposure. A plant hygiene survey is indicated.

Persons having acute respiratory infections with elevated temperature, cough, sneezing or nasal discharge should be sent home for proper segregation, rest and medical attention. In mild infections, work may be continued if under medical or nursing supervision simple measures will control symptoms and prevent spread.

Available medical evidence at the present time cannot support routine administration of cold vaccines or vitamin preparations as methods of reducing the incidence or severity of acute respiratory infections.

Frequent colds or chronic respiratory conditions require special medical consideration.

Abdominal Distress.—Early signs of occupational intoxication may be abdominal in character. In any case abdominal distress, nausea or pain, especially if severe or persistent, requires competent medical diagnosis and management.

Laxatives should never be dispensed from an industrial medical department.

Dysmenorrhea.—Painful menstruation not associated with fever or gastrointestinal disturbances may be treated with an analgesic ordered by the physician and the patient placed at rest with heat to the lower part of the abdomen. If there is no relief or if other signs or symptoms present themselves, she should be referred to her physician.

Patients with recurrent severe dysmenorrhea should not be given palliative treatment. They should be refered for examination and treatment.

DERMATITIS

Management of skin disorders in industry depends on cause.

Specific Irritants.—Materials or processes in the plant capable of causing skin disease should be identified and special orders provided for control. Competent dermatologic consultation is essential in all obscure or refractory situations.

Nonspecific Skin Disase.—Nonspecific skin irritation in industry is almost entirely assignable to faulty personal hygiene. The nurse can do much to improve washing routine, the use of dependable protective coverings, the wearing of clean work clothing, maintenance of satisfactory housekeeping in the plant and the general maintenance of accepted hygienic procedure.

PREGNANCY

A definite policy regarding employment during pregnancy should embrace the following recommendations:

1. The employee should notify the proper authority in industry about her pregnancy within the first trimester.
2. She should obtain a statement from her own physician —
 (a) That her work is not contraindicated.
 (b) Regarding the length of time she should work.
3. Special attention should be given to the nature of the work. Pulling, pushing and lifting must be kept within safe limits. Rest periods will tend to minimize emotional and physical instability during pregnancy.
4. Ordinarily work should terminate by the thirty-second week (within six weeks of term). If contraindications arise within this period, the employment should stop.
5. Return to work is inadvisable before six weeks after delivery and then only on notification of the employer by the physician.

EQUIPMENT AND SUPPLIES

Space which can command privacy and which can be kept clean and properly prepared for emergency and routine services by the nurse should be provided in the plant. Special attention should be given to heating, light, ventilation and accessibility.

FURNISHINGS AND SUPPLIES

General Furnishings:

1. Sink
2. Instrument cabinet
3. Sterilizer
4. Dressing table
5. Leg rest
6. Cot
7. Stretcher
8. Mirror 10 by 12 inches
9. Foot-pedal waste can
10. Waste basket
11. Storage cabinets
12. Paper towel rack
13. Adhesive rack
14. Record file
15. Scale

Instruments and Supplies:

1. Scalpels
2. Splinter forceps
3. Tissue forceps
4. Hemostatic forceps
5. Bandage scissors
6. Surgical scissors
7. Hand magnifying glass
8. Syringes
9. Assorted hypodermic needles
10. Assorted surgeon's needles
11. Needle holder
12. Assorted bandages
13. Adhesive plaster
14. Cotton
15. Applicators
16. Assorted sutures
17. Assorted splints
18. Assorted jars and basins
19. Test tubes
20. Safety razor and blades
21. Hot water bottle
22. Ice cap
23. Crutches
24. Tourniquet

Drugs: (as ordered by the physician or medical adviser)

1. A stimulant
2. An emetic
3. Analgesics and sedatives
4. Antiseptics

The accompanying check list of furnishings and supplies suitable for a small plant dispensary should be augmented by equipment for emergency treatment or other special medical requirements as ordered by the plant physician or other medical adviser.

REFERENCES

American Red Cross First Aid Text Book, P. Blakiston's Son Co., Inc., 1012 Walnut Street, Philadelphia.

National Research Council: Burns, Shock, Wound Healing and Vascular Injuries, Philadelphia, W. B. Saunders Company, 1943.

Sappington, C. O.: Essentials of Industrial Health, Philadelphia, J. B. Lippincott Company, 1943.

Division of Industrial Hygiene, U. S. Public Health Service: Manual of Industrial Hygiene, Philadelphia, W. B. Saunders Company, 1943.

Johnstone, Rutherford T.: Occupational Diseases, Philadelphia, W. B. Saunders Company, 1941.

Occupational Hazards and Diagnostic Signs, Bulletin 41, Division of Labor Standards, U. S. Department of Labor, U. S. Government Printing Office, Washington, D. C., 1941.

Wampler, Fred J.: Principles and Practice of Industrial Medicine, Baltimore, Williams & Wilkins Company, 1943.

Publications of the Council on Industrial Health, American Medical Association, 535 North Dearborn Street, Chicago.

(a) The Industrial Medical Department.
(b) Plant Hygiene Studies.
(c) Outline of Procedure for Physicians in Industry.
(d) Women in Industry.
(e) Control of Common Respiratory Infections.
(f) Indiscriminate Administration of Vitamins to Workers in Industry.
(g) Recognition and Prevention of Industrial Dermatitis.

BELIEVE PENICILLIN OF VALUE FOR STAPHYLOCOCCIC MENINGITIS

Experiments Indicate Injection into Space at Base of Brain or into Spinal Canal Is Safe Treatment, Two Doctors Say.

Injection of penicillin into the spinal canal or into the space at the base of the brain which contains the cerebrospinal fluid will probably be valuable in the treatment of staphylococcic meningitis (infection with the staphylococcus of the three membranes which envelop the brain and spinal cord). Cobb Pilcher, M.D., and William F. Meacham, M.D., Nashville, Tenn., report in *The Journal of the American Medical Association* for October 9. Their statement is based on results obtained in animal investigations.

The two investigators found that injection of penicillin into a vein had little if any beneficial effect whereas "intrathecal treatment . . . with relatively small doses of penicillin greatly reduced the mortality rate (from 93 per cent in control experiments to 54 per cent in treated animals)."

The preventive possibilities of penicillin for staphylococcic meningitis were not encouraging. "The number of animals which recovered was greater in the groups in which treatment was begun after injection of staphylococci than in those in which treatment was begun before injection," Drs. Pilcher and Meacham report.

"It is significant that the cerebrospinal fluid cultures remained positive for several (or many) days even in those treated animals which recovered. This is in support of the now generally accepted concept of penicillin as a bacteriostatic (stopping growth) agent.

"At no time were any harmful effects attributable to penicillin therapy. . . .

"From our experiments it seems justifiable to conclude that intrathecal injection of penicillin is a safe form of therapy and to suggest that this method of treatment will probably be of great value in clinical cases of staphylococcic meningitis."

Their experimental study was undertaken as one of a series of investigations of the treatment of infections of the central nervous system and its coverings.

VISCOSE TUBING FOR TRANSFUSIONS

Because the cleansing of rubber tubing to be used for intravenous administration of blood or blood protein is difficult and incomplete cleansing is believed to be a major cause of pyrogenic or fever producing reactions, a heavy walled Viscose tubing (made of a synthetic substance) is used by Henry Naftulin, A. M. Wolf, M.D., and S. O. Levinson, M.D., Chicago, they report in *The Journal of the American Medical Association* for October 9.

They say that "in a total of 1,137 blood transfusions given through Viscose tubing the incidence of pyrogenic reactions was 0.64 per cent. This is a material decrease from the reaction rate encountered with rubber tubing."

The battlefields of the spirochetes are the blood vessels of the brain.—Fetterman.

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

Edward A. Piszczek, Director of the Cook County Public Health Unit, has been selected by the National Foundation for Infantile Paralysis to collect information throughout the country on treatment of the disease.

William G. Hibbs, Associate Clinical (Rush) professor of Medicine, University of Illinois College of Medicine, has been appointed medical director of the Presbyterian Hospital, Chicago. He began his work on August 1.

Major H. Worthington, Superintendent of the Research and Educational Hospitals of the University of Illinois has been appointed to membership in the American College of Hospital Administrators.

Robert H. Hayes of Chicago, a member of the board of directors of the Tuberculosis Institute of Chicago, has been made Vice-President of the Mississippi Valley Conference on Tuberculosis.

Ogle County Medical Society held a meeting at Rochelle on October 22nd and elected the following officers for the ensuing year: President, W. E. Kittler of Rochelle; Vice-President, L. R. McDaniel, Polo; Secretary and Treasurer, A. R. Bogue of Rochelle; Censor, L. Warmolts, Oregon.

According to a dispatch from Naples to the Chicago Tribune of October 5th, Captain Fausto Ciulini, 6144 Kenneth Avenue, Chicago, second in command of the allied military government (AMG) in Naples, is overseeing measures to guard the health of the city in the wake of German destruction and withdrawal.

DR. MEYER AWARDED SILVER STAR

Capt. Alfred C. Meyer, Chicago, of the Army Medical Corps has been awarded the Silver Star for heroism and outstanding achievement in operating on wounded soldiers while under Japanese gunfire in New Guinea. He is said to be serving with the first portable hospital to be established by the Army. A portable hospital is understood to be one in which the medical equipment and supplies are so packed and arranged that in jungle warfare they may be carried forward near the front lines, if necessary, by hand.

PRISONER OF THE JAPANESE

The first direct word from Capt. Gerald M. Greenspahn, formerly of Chicago, since Nov. 27, 1941 was recently received by his family, indicating that he is being held as a prisoner of the Japanese in the Philippines in prison No. 1. Captain Greenspahn graduated from Northwestern University Medical School, Chicago, in 1935 and was staff physician of the American Hospital before entering the service.

MICHAEL REESE HOSPITAL UNIT IN ITALY

An army evacuation hospital built around the original Michael Reese Hospital Unit which was formed in Chicago is reported to have landed in Italy with the American Fifth Army. The hospital was immediately set up and can handle 1,000 patients and treat every type of casualty.

Hundreds of tons of equipment were landed with the unit, and the personnel includes specialists in every branch of surgery. Lieut. Col. Phillip A. Daly of Chicago is in command of the unit, and other medical personnel are as follows:

Major Alfred E. Jones, Chicago.
Major Manuel E. Lichtenstein, Chicago.
Major Samuel Perlman, Chicago.
Major Laurence M. Weinberger, Chicago.
Capt. Harry E. Barnett, Chicago.
Capt. Richard M. Bendix, Chicago.
Capt. David Z. Berger, Chicago.
Capt. Ernest D. Bloomethal, Chicago.
Capt. Joseph A. Carbone, Gary, Ind.
Capt. Melvin R. Cohen, Chicago.
Capt. Norman R. Cooperman, Chicago.
Capt. Sol Ralph Friedlander, Chicago.
Capt. Richard E. Heller, Chicago.
Capt. Harold Laufmann, Chicago.
Capt. Saul A. Mackler, Chicago.
Capt. Phillip M. Marcus, Chicago.
Capt. William H. Parker, Oak Park, Ill.
Capt. Alfred J. Platt, Chicago.
Capt. Arthur H. Schoenwetter.
Capt. Morris J. Shapiro, Chicago.
Lieut. Sol Z. Draznin, Chicago.
Lieut. Samuel H. Fraerman.
Lieut. Jesse G. Garber, Chicago.
Lieut. Wilbur Gordon, Chicago.
Lieut. Ralph R. Landes, Chicago.
Lieut. Samuel M. Marcus, Chicago.
Lieut. Manuel L. Stillerman, Chicago.
Lieut. Leonard A. Stine, Chicago.
Lieut. Leonard Weinstein, Chicago.

COMING MEETINGS

November 17 and 18 — "Nutrition in Wartime", Postgraduate Assembly sponsored by the Institute of Medicine of Chicago, Grand Ballroom, The Stevens Hotel, Chicago. Morning, afternoon and evening sessions. On Thursday evening the William Hamlin Wilder Memorial Lecture will be given by Russell M. Wilder, Chief, Civilian Food Requirements Branch, War Food Administration, Washington, D. C. His subject will be "Nutrition and the Human Eye."

Physicians, dentists, nutritionists and dietitians in the Midwest who are interested in problems of war time nutrition are invited to attend this Postgraduate Assembly at The Stevens. There will be no fees.

November 17 — Du Page County Medical Society — Elmhurst Community Hospital, Evening — Howard Wakefield, "Acute and Chronic Coronary Occlusion."

November 18 — Tri-County Medical Society — Monmouth — Afternoon and Evening. Robert S. Berghoff, "Heart Disease"; Warren H. Cole, "Gall Bladder Disease".

November 19 — Will-Grundy County Medical Society — 12:00 noon, Louis Joliet Hotel, Joliet — J. Ernest Breed — "Cancer of the Cervix".

November 23 — Macoupin County Medical Society — Evening.

November 26 — Will-Grundy County Medical Society — Leon Unger — "Allergy"

December 3 — Will-Grundy County Medical Society — Wayne W. Fox — "Pneumonia"

December 9 — LaSalle-Bureau County Society — LaSalle — 6:00 P. M.

December 10 — Will-Grundy County Medical Society — C. O. Sappington — "Industrial Medicine and the Private Practitioner."

December 7 — Vermilion County Medical Society — Evening, Danville — G. W. Post

December 7 — Fort Wayne Medical Society, Indiana — Robert S. Berghoff — "Left Ventricular Failure Verus Right Ventricular Failure."

December 14 — Kankakee County — Kankakee — Edward A. Pisczek — "Poliomyelitis".

MARRIAGES

Robert Pettibone Gilbert, Chicago, to Miss Anne Heneage of Oak Park, Ill., June 5.

DEATHS

Edward Lyman Brown, Bloomington; Northwestern University Medical School, 1894. Had practiced medicine in South Dakota eight years and came to Bloomington in 1903. Died following a heart attack on October 10, 1943 at the age of 79.

Ned Alvin Balding, Lincoln; St. Louis University School of Medicine, 1912. After graduating from medical college, he joined the U. S. Army and spent two and one-half years in the Philippine Islands. Was

a veteran of the Spanish-American War. Member of Logan County Medical Society and of the Masonic Order. Died suddenly, probably of a heart attack while driving his car on October 6, 1943, at the age of 57.

Clinton G. Beckett, Danville, retired; Medical College of Indiana, Indianapolis, 1905. Was walking along the Wabash River when he fell down the bank and into the river because of a heart attack, and died on September 18, 1943. He was 69 years old.

Jonas Whittier Carlisle, Robinson; College of Medicine and Surgery, Chicago, 1897. Had practiced medicine in Robinson for nearly 50 years. Died following on operation on October 8, 1943 at the age of 75.

John Lovell Cass, Kankakee; St. Louis University School of Medicine, 1904. Practiced medicine in Aurora for 15 years before he joined the medical staff of the Kankakee State Hospital. Died following a coronary thrombosis September 22, 1943 at the age of 63.

George Foster Fiske, Chicago; Yale Medical School, 1883. Founder of Henrotin Hospital; member and one time president of the Opthalmological Society, member of the Loyal Legion and the University Club. Died October 18, 1943 at the age of 83.

Andrew J. Goodwin, Kankakee; Illinois Medical College, Chicago, 1907. Health officer of the village of Bradley and physician in Kankakee, for 34 years, died at St. Mary's Hospital, October 11, 1943 at the age of 64.

William A. Young, Springfield, retired; Washington University School of Medicine, St. Louis, 1892. Had practiced medicine in Springfield for 51 years; member of the "Fifty Year Club." Was surgeon for the B. & O., Illinois Central and Alton and C. P. & St. Louis railroads for many years. Died of a heart attack on October 6, 1943 at the age of 73.

NEW SULFONAMIDE BENEFICIAL FOR DIARRHEA OF THE NEWBORN

Succinylsulfathiazole Produced Remarkable Results In 11 Cases Of The Highly Fatal Disease, Two Indianapolis Doctors Say

Of 22 cases of neonatal diarrhea (of the newborn), 11 were treated with succinylsulfathiazole (a sulfonamide drug), with only two fatalities in the latter group, both of which are believed due to inadequate dosage of the drug, Allan H. Twyman, M.D., and George R. Horton, M.D., Indianapolis, report in *The Journal of the American Medical Association* for September 18. In the 11 cases in the control series there were four deaths.

"Outbreaks of epidemic diarrhea of newborn infants," the two physicians explain, "occurred in the fall of 1942 in Cleveland, Carlisle, Pa., Detroit, Toledo, Ohio, Dayton, Ohio, and Indianapolis. The disease is now appearing again in various parts of the Midwest. The disease is not new. It has occurred many times in the past in Europe as well as in this country. Infants afflicted are usually less than 1 month of age. Those weighing over 7 pounds are victims as well as smaller and premature infants. The latter suffer the greatest death rate. The onset of the disease may be sudden or insidious. In the former case the baby begins to pass frequent, watery, greenish yellow stools, vomits and has fever. It may be drowsy or irritable. The weight loss may be alarming, and dehydration within a few hours may be severe. Fluid replacement, blood transfusions, changes of feeding formulas or the addition of pectin agar to the formulas have no satisfactory effect on the outcome of the disease. The mortality rate is usually near 50 per cent.

"A milder type of the disease has been described. In this the stools are less frequent, the vomiting is not severe, loss of weight is slight or absent, and dehydration and fever may not be present. The recovery usually occurs in a week or ten days. . . ."

The two physicians say that they did not find a causative agent for the disease in the group of patients treated by them at Indianapolis. They explain that succinylsulfathiazole, a comparatively new sulfonamide, has been used chiefly in preparation of patients for surgery of the large bowel and for the treatment of bacillasy dysentery. They report that they have found no reference in medical literature concerning the use of the drug in neonatal diarrhea. "We offer no explanation," they say, "for the success of its employment, since no specific cause for the disease has been found."

In the 11 control cases they say that the average number of days of hospitalization for those who recovered was almost twice that of the infants treated with succinylsulfathiazole. The weight gain for eight days of infants treated with the drug was not matched in seventeen days by the untreated infants. There was a rapid reduction in the number of stools in twenty-four hours in those infants treated with succinylsulfathiazole in contrast to a very gradual reduction in the untreated ones.

P. R. N.

The Jocular Jingles of C. G. F.

by

Charles G. Farnum M. D.

Peoria, Ill.

SEASONABLE SONNETS

NOVEMBER

November opens doors to bleaker times,
All vegetation sleeps, the world is drear,
We do not chide the winds from colder climes,
It causes bugs and flies to disappear.
The day of Armistice comes once again,
Reminding us of war to end all strife.
Forlornest hope! For in the hearts of men
It kindled further hatred, loss of life.
The young folks revel in the snappy air,
The snow and ice to them a welcome treat;
Thanksgiving comes, instead of thankful prayer,
A holiday with far too much to eat.
November is the gloomiest of all,
Not winter yet but much too late for fall.

NEVER TOO COLD!

Outside a raw wind's blowing,
A fire indoors is glowing,
The glorious autumn is no longer here;
The air is sharp and chilling,
A prophesy fulfilling,
That boistrous winter time is very near.

A few snow flakes are flying,
The grass is dead or dying,
The sear brown leaves in sodden heaps are blown;
The cold is blood congealing,
Fate seems to be misdealing
When cutting winds o'er hills and valleys moan.

'Tis melancholy, dreary,
Most desolate and weary,
When bleak gray clouds are blustering overhead;
The wind is penetrating,
The cold is not abating,
Bare trees stand stark and naked like things dead.

I'm frozen and unhappy
In weather cold an snappy,
On sharp and frosty days I sneeze and cough;
Though temperature is falling
I hear a tempter calling —
I think I'll go and play a game of golf!

A very thin man met a very fat man in the hotel lobby.

"From the looks of you," said the fatman, "there might have been a famine."

"Yes," was the reply, "and from the looks of you, you might have caused it."

CYNICAL CINQUAINS

We toil
The summer through
With garden, flowers and lawn;
An early frost and all that grew
Is gone.

NOVEMBER

November is here,
We shed a sad tear,
We dolefully stand beside last summer's bier.

The trees are all bare,
There's frost in the air,
The dead leaves are tossed by the wind everywhere.

The north wind so bleak
Nips sharply our cheek,
A place that is snug we most hastily seek.

Though all is so drear
There's one ray of cheer,
We don't have to mow any lawns 'till next year.

GLOOM

My soul is filled with sadnes and with gloom,
I feel like one who's going to his doom,
Hot tears in eyes are welling,
My chest with sobs is swelling,
Some faithful friends today I must inhume.

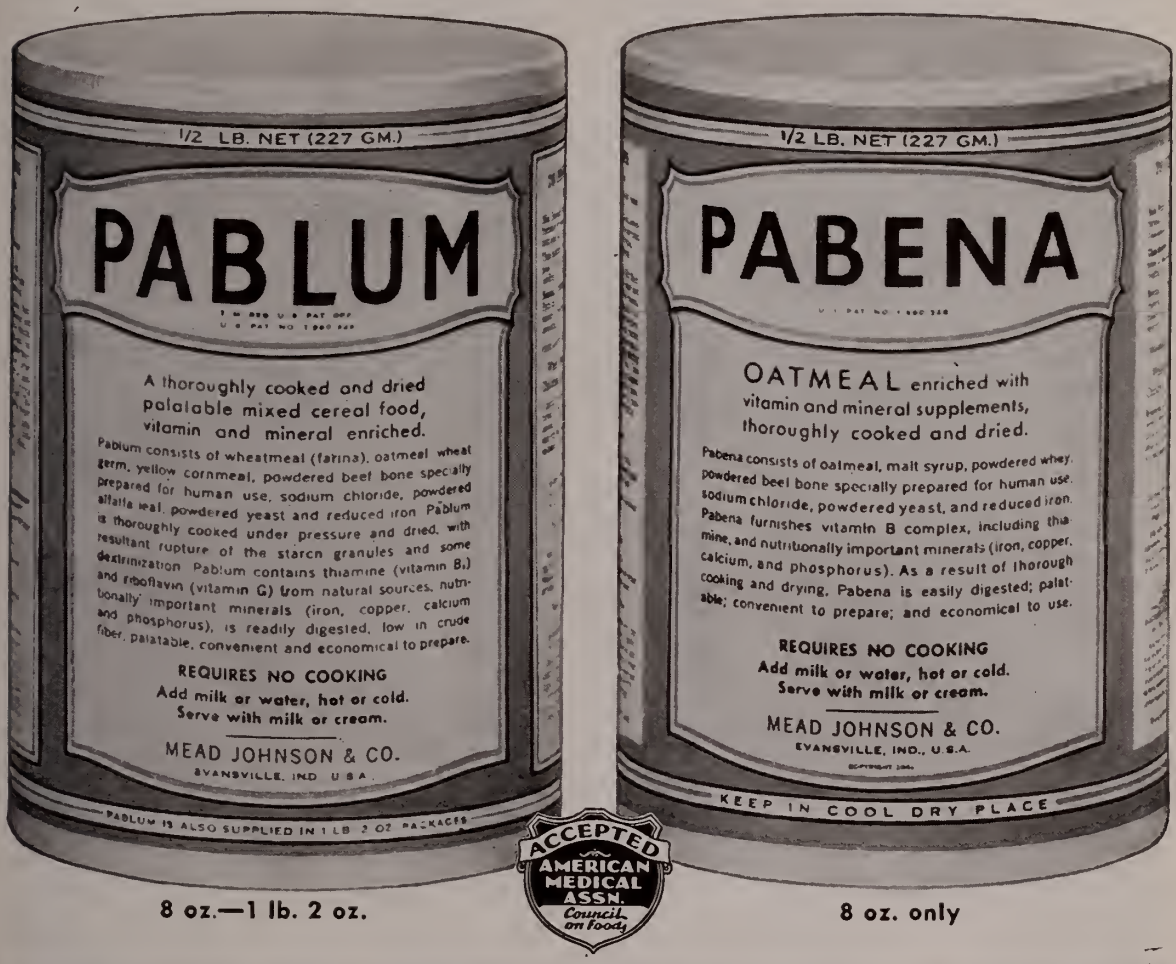
The trees are bare, the sky is over cast,
We soon will face cold winter's chilling blast,
A thing I greatly cherish
Is now about to perish;
The doleful episode has come at last.

Existance will be dull and life be drear,
The world can offer little that will cheer;
The moment is dramatic —
I saunter to the attic
And put away my golf clubs for the year.

Professor Paresis having read that a vegetarian diet is best for those who would be beautiful, meekly suggests that is does not seem to have done much for the hippopotamus.

Someone said that of all the millions of species or living organisms on the earth the two about which most had been written were man himself and — the tubercle bacillus. Biological Aspects of Infectious Disease. F. M. Burnet, M.D. 1940.

1932 **1942**



8 oz.—1 lb. 2 oz. 8 oz. only

PABLUM, the pioneer precooked fortified infant cereal, now has a companion-product: Pabena is a precooked oatmeal cereal, lending variety to the infant's diet and offering the nutritional and convenient features of Pablum.

BOTH continue to be marketed and advertised only to the medical profession. Samples available on physicians' requests.

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For Your Post-War Practice

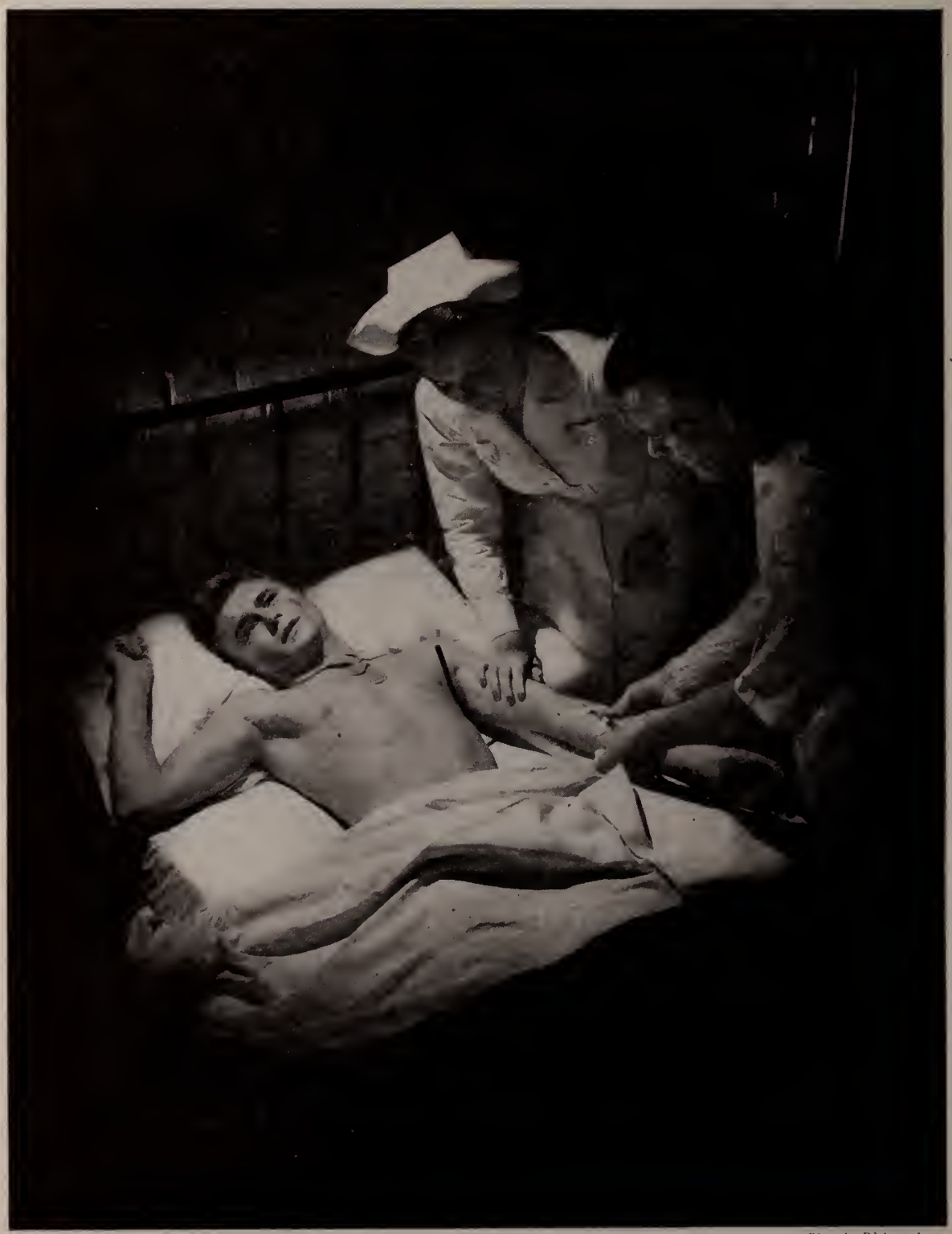


Photo by Dickson-Joyce

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PENICILLIN stands today the most remarkable antibacterial agent that modern medicine has evolved. It is miraculously effective in the treatment of staphylococcic, gonococcic, pneumococcic, and hemolytic streptococcic infections. It is of enormous benefit in cases of infection that are resistant to sulfonamides. But, because of its scarcity and the needs of our military forces, civilian requirements must wait greater production of penicillin. The illustrations show the surface culture method of production, which enables Reichel Laboratories to produce maximum quantities of penicillin to meet the urgent demand.



First stage in production of penicillin at Reichel Laboratories—one of the leading U. S. laboratories to undertake production of the new "wonder" substance. Seed spores of the mold *penicillin notatum* are introduced into the culture medium.



Penicillin production requires a precise control of the temperature at all times. Inoculated culture bottles are stored in constant temperature air-conditioned rooms at the Reichel Laboratories. Here the mold grows slowly on the surface of the culture media in the bottles.



The "mat" of the mold excretes penicillin. Note curious "horse tooth" formation of outer edge of "mat." Entire resources of the Reichel Laboratories today are devoted principally to production of penicillin and blood plasma for U. S. military needs.



After 10 days' incubation each bottle contains the mold growth. The droplets or "pearls" on the mold "mat" are rich in penicillin which Reichel Laboratories extract in tiny quantities by means of intricate separation and refinement processes.

Photos on this page by Margaret Bourke-White



Frozen liquid penicillin is reduced to dry yellow powder in dome driers at Reichel Laboratories. Development of penicillin is a superb example of cooperation between industrial laboratories and Government agencies.

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KIMBERTON, PA.
DIVISION Wyeth INCORPORATED



THOUGHTS FOR THE THINKING REED...

Man is but a reed, the weakest in nature, but he is a thinking reed
—PASCAL

• With the general import of Pascal's great observation there can be no disagreement, but to a more literal interpretation physicians in particular might be inclined to take exception. Men are creatures of strong habits and most of them need others to do their thinking.

Thus, in the matter of nourishment, many people continue to choose what they like or what they are accustomed to, rather than what is necessary for good health.

A report issued by recognized authorities on nutrition points out that "there is a high proportion of poor diets among the employed population," and, as a result, "dietary inadequacies and malnutrition of varying degrees are of frequent occurrence."[1] Deficiencies of the vitamin B complex are considered the most serious of all,[2] and wartime rationing of meat and dairy products can hardly be expected to improve this situation.

Adequate, well-balanced diets are difficult to select, and even more difficult to obtain.[3] This, in addition to the fact that improper eating habits are hard to correct, indicates the administration of vitamin supplements.

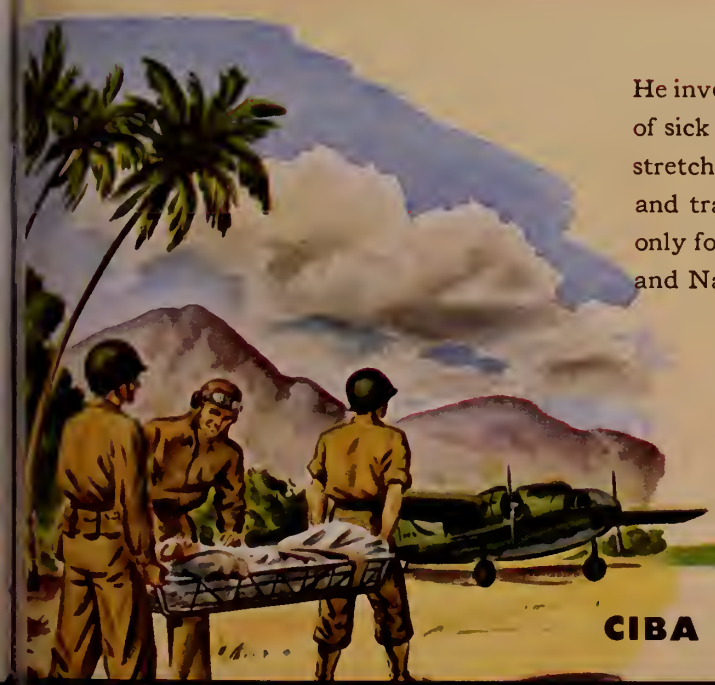
Elixir 'B-G-Phos' is designed for the prophylaxis or treatment of vitamin B complex deficiency, providing *all* the essential B factors and glycerophosphates as well. Supplied in pint and gallon bottles. Sharp & Dohme . . . Philadelphia.

ELIXIR 'B-G-PHOS'

1. Jolliffe, N., McLester, J. S. and Sherman, H. C.: J. A. M. A., 118:944, 1942
2. Farran, T.: South. Med. J., 34:85, 1942
3. Barborka, C. J.: Am. J. Dig. Dis., 9:309, 1942



He Facilitated Care of the Injured



He invented the Stokes wire-basket stretcher for transportation of sick and injured because of the need for a safe, comfortable stretcher adapted to narrow passageways, ladders, gangways and transfer at sea. A modification is widely used today, not only for ships, but in the large ambulance planes of both Army and Navy.

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CBPA ARMY E NAVY

CIBA PHARMACEUTICAL PRODUCTS, INC

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[1] *Wright, H. E.: Tri-State Med. J., July, 1939*

*Trade Mark Reg. U. S. Pat. Off. (iodochlorhydroxyquinoline)

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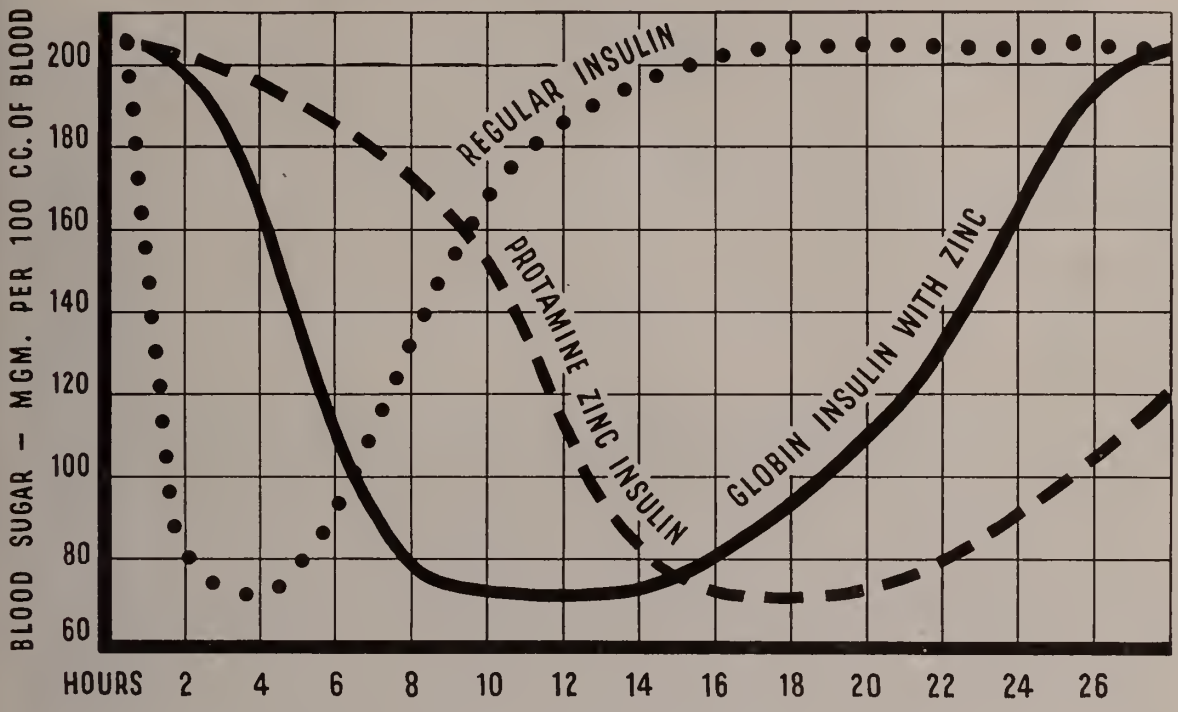
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Book Reviews

AN ATLAS OF ANATOMY; By J. C. B. Grant, M.C., M. B., Ch.B., F.R.C.S., Professor of Anatomy, University of Toronto. The Williams and Wilkins Company, Baltimore, 1943. Price $5.00.

This is the first of two volumes of an Atlas of Anatomy covering the upper limb, abdomen, perineum, pelvis and lower limb. Publication of the second volume is expected before the end of the present year. Unusual care was used in the execution of the excellent illustrations to be found throughout the book and most of them were prepared from specimens in the Anatomy Museum of the University of Toronto. The majority of the illustrations are in color.

The regional presentation follows closely the prevailing methods of dissection taught in American schools. The comments which accompany the illustrations make the volume of greater value to both the student and the clinician, invariably calling attention to many salient points, many of which might otherwise be overlooked. The illustrations are indeed well interpreted.

Complete information is available on the anatomy of the several parts of the body depicted in this volume, thus giving information rarely found in a single publication. The book should be of inestimable value to the teacher and student, as well as to the members of the medical profession as it gives an opportunity for a quick review of anatomical information which is desired so often in surgery, treatment of fractures, and to refresh the memory in the proper handling of every day casualties in civilian and industrial life.

DISEASES OF THE BREAST: Charles F. Geschickter, M.A., M.D., Lt. Comdr., USNR MC, Director of the Francis P. Garvan Cancer Research Laboratory; Pathologist, St. Agnes Hospital, Baltimore. J. B. Lippincott Company, Philadelphia, 1943. 829 pages; 593 illustrations. Price $10.00.

It is quite interesting to note that in recent years more groups of specialists have become interested in the etiology, diagnosis and treatment of diseases and malformations of the breast. Among these are the surgeon, roentgenologist, gynecologist, endocrinologist and the pathologist. Naturally with so many types of specialists interested in the subject, we would expect to find some variance of opinion in the proper management of these disturbances, and the author of this book has given this subject much consideration.

He has been able to give much important data on the subject through his association with such men as Dean Lewis, Halsted, Welch, and Bloodgood and their records at the Johns Hopkins Hospital have been carefully and critically reviewed by the author in preparing his manuscript.

The book is divided into seven parts as follows:

1. Mammary Development, Physiology and Hypertrophy. Methods of examination and diagnosis.
2. The Breast in Pregnancy and Lactation.
3. Chronic Cystic Mastitis or Mammary Dysplasia.
4. Benigh Mammary Tumors.

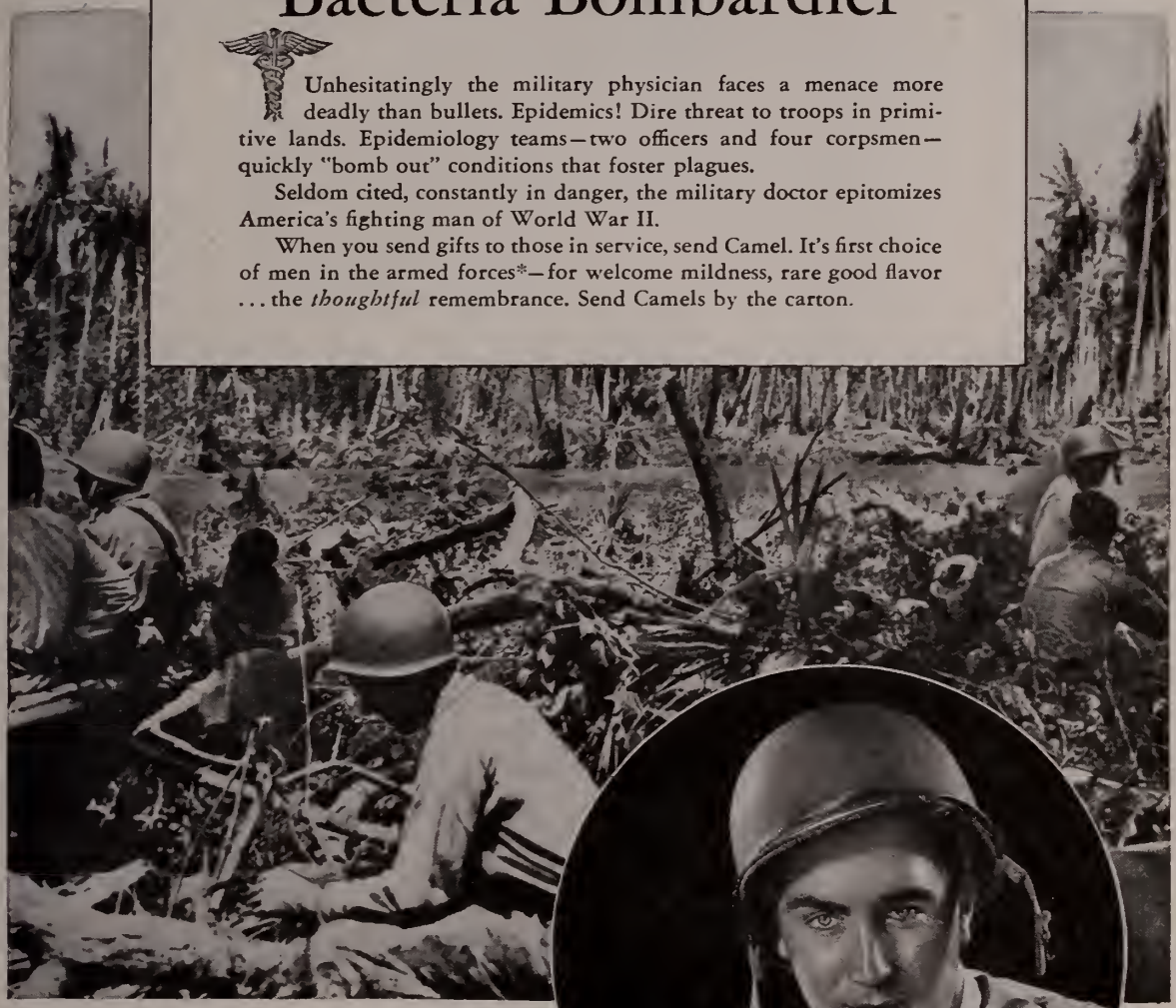
(*Continued on page* 42)

Bacteria Bombardier

Unhesitatingly the military physician faces a menace more deadly than bullets. Epidemics! Dire threat to troops in primitive lands. Epidemiology teams—two officers and four corpsmen—quickly "bomb out" conditions that foster plagues.

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Camel

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New reprint available on cigarette research—Archives of Otolaryngology, March, 1943, pp. 404-410. Copies on request. Camel Cigarettes, Medical Relations Division, 1 Pershing Square, New York 17, N. Y.

BOOK REVIEWS (Continued)

5. Malignant Mammary Tumors.
6. Therapy.
7. The Experimental Production of Benign and Malignant Mammary Tumors.

Throughout the book as each of the many conditions is described much attention has been given to the diagnosis, pathology and treatment. The physiologic control of breast development through successive stages of life, through hormonal secretions of the ovary, pituitary and the placenta are well outlined.

The section on treatment which has been prepared in collaboration with Murray M. Copeland, A.B., M.D., F.A.C.S., instructor in surgery at Johns Hopkins Medical School, will be of great interest to surgeon, gynecologist and roentgenologist, as the various forms of treatment and their indications are so well discussed in detail.

Many fine illustrations increase the value of the book to the reader, and it should be a valuable addition to the libraries of many modern physicians regardless of their type of practice. It is well known that the sooner the diagnosis is made in many of these conditions affecting the breast, and the sooner the proper type of therapy is given, the better the chances are for recovery. For this reason, the up to date general practitioner, as well as the several types of specialists now interested in diseases of the breast, should be able to recognize abnormal conditions and see that no time is lost in referring the patient, if necessary, to the proper specialist for further diagnosis and early institution of treatment.

Manual of Fractures: Treatment by External Skeletal Fixation. By C. M. Shaar, M.D., F.A.C.S., Captain, Medical Corps, United States Navy, and Frank P. Kreuz, Jr., M.D., F.A.C.S. Lt. Comdr., Medical Corps, United States Navy. Illustrated. W. B. Saunders Company, Philadelphia.

This small volume of 300 pages carries a foreword by Rear Admiral Ross T. McIntyre, Surgeon General, U. S. Navy, in which it is stated that the violence of modern warfare presents many types of problems to the surgeon who must handle bone injuries, and that he believes this book is a real contribution to medical literature, and much good should come from it.

It is not the intention of the authors to give the impression that all fractures in their proper care, need external skeletal traction, but they do desire to show that there are many cases in which this type of treatment is not only definitely indicated but should be the method of choice.

The authors describe the methods of external fixation which have been used rather extensively in recent years, then tell of their experience with the Stader splint which Stader presented to them in December of 1941. Since that time the authors have used this splint in over 157 cases of various types of fractures and orthopedic problems. Although they admit this is a relatively small number of cases and a short time interval to properly evaluate the method, yet with the many casualties involving bones in modern warfare, it seems desirable that the armed services should have more information on the use of this and similar appliances as quickly as possible.

Factors favoring the Stader splint are the simplicity of the reduction maneuvers, its compactness, light weight, and the fact that it is applicable to one aspect of the fractured limb only. No bulky frames, reduction tables or special immobilization devices are necessary, and proper adjustments may be made at the bedside. The device may be used in the field, on board ship, etc., subject to subsequent control in base hospitals. The mechanical principles and method of application of the Stader splint are thoroughly described. The errors in the treatment by external fixation are discussed, these usually being due either to improper technique or improper selection of cases. Great emphasis is placed on the necessity of having pins penetrate both cortices, and when possible it is always advisable to have portable x-ray equipment available to check on this important factor before completing the operative procedure.

Anyone interested in treatment of fractures, especially those complicated types which do not respond to the ordinary methods of treatment, should find this compact volume of much value. It not only tells of the method of use as well as indications for this type of external fixation, but also much valuable information concerning

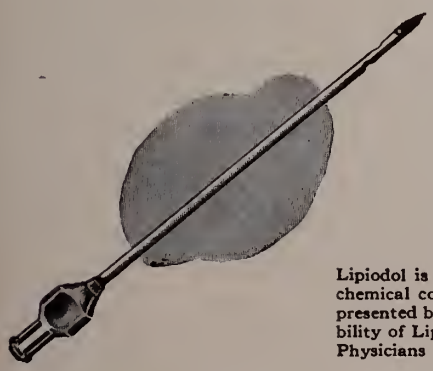
(*Continued on page 44*)

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Authorities recommend immediate removal of the oil after completion of the x-ray examination. This procedure is readily carried out by the technic of Kubic and Hampton* who advise a second lumbar puncture (for withdrawing the oil) with the patient in the neutral position; under fluoroscopic control, the table is tilted until the oil globule is under the needle tip; gentle suction permits of ready withdrawal. By boring a hole in the needle, just behind the bevel (Klemme, Scott, and Woolsey‡), oil removal is facilitated and is more complete.

*Kubic, C. S., and Hampton, A. O.: Removal of Iodized Oil by Lumbar Puncture, New England J. Med. *224*:455 (Mar. 13) 1941.

‡Klemme, R. M., Scott, W., and Woolsey, R. D.: Intraspinal Protrusion of Intervertebral Disks: Observations on Diagnosis, J. Missouri M. A. *39*:131 (May) 1942.

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BOOK REVIEWS (Continued)

the treatment of fractures in general. The value of the book is increased materially through the 148 fine illustrations. It is the opinion of the reviewer that this is a highly important and most timely volume on a subject of great importance today.

A Manual of Cardiology: By Thomas J. Dry, M.A., M.B., Ch.B., M.S. in Medicine. Assistant Professor of Medicine, University of Minnesota (Mayo Foundation); Consultant in Section on Cardiology, Mayo Clinic. 310 pages with 80 illustrations. W. B. Saunders Company, Philadelphia. 1943. Price $3.00.

Many books have been brought out in recent years covering the subject of cardiology in much detail, but this author has endeavored to meet a popular appeal for a pocket manual on the subject which would give the salient facts without going too much into detail. Beginning with the normal heart and fundamental considerations of heart disease, the author has described the features which should be sought in making a definite diagnosis. The appraisal of the patient, consideration of the patient's age, and the several conditions most frequently found in the particular age group, have been given proper consideration.

The author has covered his subject well, giving the essentials for making diagnosis as well as endeavoring to give prognosis and proper lines of management. The subject of cardiac reserve is always interesting and important, and a clear picture is presented of its importance in venturing the prognosis in heart diseases. Much helpful information will be found throughout the book which will assist the physician interested in caring for those ailments which today are causing more deaths than any other condition.

In considerable detail such important subjects are described as congenital heart diseases, rheumatic heart disease, hypertensive heart disease, coronary heart disease, and syphilitic heart disease. These in order are the principal affections of the human heart in the varying age brackets. The heart changes in several metabolic states

(*Continued on page* 46)



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BOOK REVIEWS (Continued)

are likewise, considered, along with pericardial disease and congestive heart failure.

One of the most valuable considerations in the volume is the author's statements as to what can be expected after congestive heart failure, coronary attacks, and in the several other conditions covered in the book. This will be of much value to the physician interested in giving information to the patient or members of his family after the acute illness has subsided. The book, consisting of some 300 pages, and some 80 illustrations, will be of much interest to physicians in general practice who desire to review quickly many of the conditions so well outlined.

THE PRINCIPLES AND PRACTICE OF WAR SURGERY. With Reference to the Biological Method of the Treatment of War Wounds and Fractures. By J. Trueta, M.D., Formerly Director of Surgery, General Hospital of Catalonia, University of Barcelona; Assistant Surgeon (E.M.S.) Wingfield-Morris Orthopaedic Hospital, Oxford; Acting Surgeon-in-Charge, Accident Service, Radcliffe Infirmary, Oxford. With Introduction by Owen H. Wangensteen, M.D., Minneapolis, Minn. With 144 Text Illustrations. The C. V. Mosby Company, St. Louis, 1943. Price $6.50.

This book in its subject matter, is principally based upon the author's experience during the recent war in Spain, and deals to a considerable extent with the application of biologic methods of treating war wounds and fractures.

After a brief description of what he considers the biological principles of treatment, Dr. Trueta tells in much detail of the development of war surgery, the healing of wounds, infections, passage of bacteria and their toxins through the body, the body defenses against infection, and discusses the various types of infections so frequently encountered in war casualties.

The important subjects of shock, its early recognition and treatment, the procedures in combatting shock with transfusions of blood, plasma and serum, are given in much detail.

In Part II, The Essentials of War Surgery, the author gives the five basic principles in the biological treatment of wounds:

1. Prompt surgical treatment.

(*Continued on page* 50)



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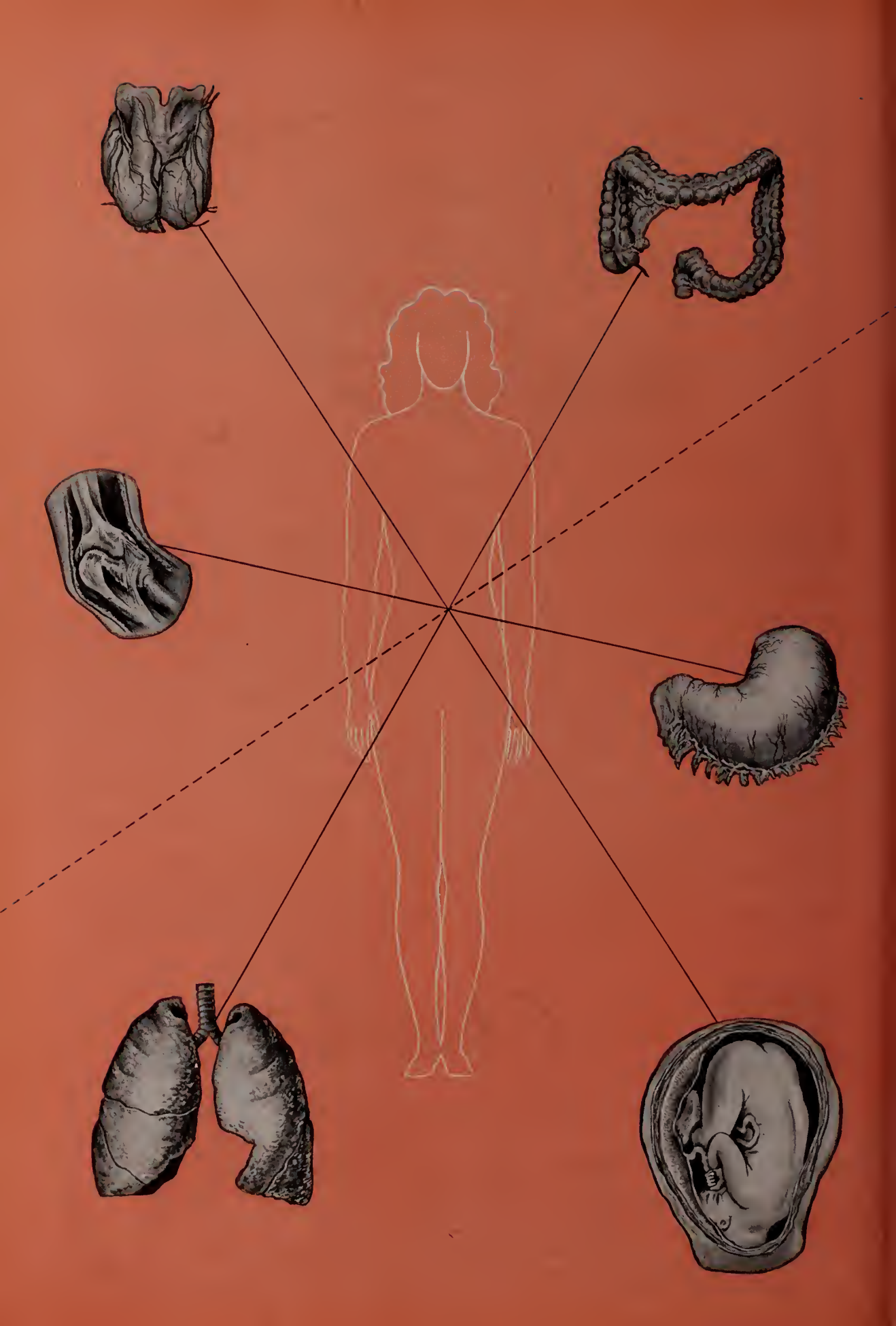


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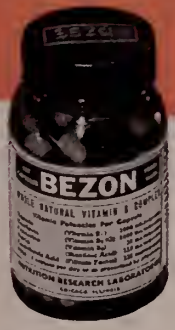
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BOOK REVIEWS (Continued)

2. Cleansing of the wound.
3. Excision of the wound.
4. Provision of drainage.
5. Immobilization in a plaster of Paris cast.

He recognizes the rather well-known fact that no antiseptic is equal to soap and water for dealing with contamination in a wound. He states that only the staphylococcus has some resistance against good soap in this treatment; he believes in a thorough excision of the wound and the use of a closed plaster cast. He believes in the use of drainage with dry gauze and counter drainage in deep, penetrating wounds, preferably by means of rubber tubing. He recommends that the wound then be dusted with sulfanilimide and finally the application of a fixation cast.

In subsequent chapters the author outlines the five points, giving carefully his recommended technique. Considerable amount of space is devoted to a thorough consideration of regional surgery in which these principles are applied in the treatment of many types of conditions involving various parts of the body, all of which are well illustrated with photographs, x-ray pictures and graphs.

This is indeed a most valuable addition to any medical library, and is a fine contribution to the subject of war surgery which is occupying so much time of the surgeon today. Most of the material is also of value in civilian practice with the ever increasing number of casualties among industrial workers.

1944 Daily Log for Physicians. Colwell Publishing Company, Champaign, Illinois. Price $6.00 Postpaid.

The Daily Log for Physicians has been published annually for 16 years, and each year the publishers have added a number of things to the log to aid the physician in maintaining his proper records.

In addition to the many features which the Daily Log has had the past year, it has proper provisions for the "pay as you go" tax program so that accurate records may be available at a moment's notice. By its use, the busy physician can likewise keep records of both professional and outside income, making it easier to compute the new tax rates and the necessary quarterly payments.

(*Continued on page 52*)



At the end of 4 to 6 hours Sal Hepatica solution mounted almost to top of thistle tube from low level (see inset).

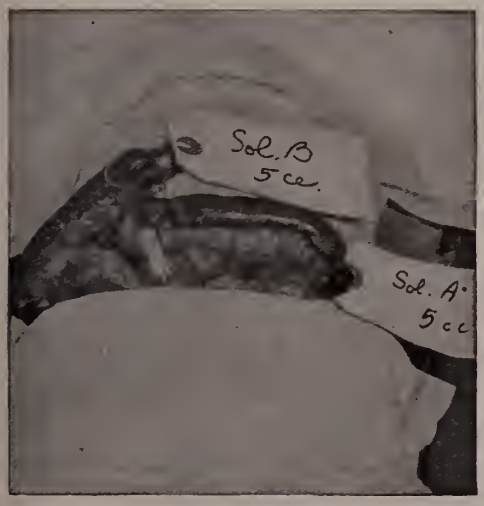
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BOOK REVIEWS (Continued)

Another new, is the form contained in the LOG for non-professional deductions, these kept separate from professional records and deductions.

The thousands of physicians throughout the country who have used the Daily Log for Physicians will welcome indeed, the new 1944 edition, ready to go to work on the first day of the new year. A number of interesting types of forms for physicians are also available through the Colwell Publishing Company; such as clinical and record forms, Clinical data, file envelopes with thumb index cut, for filing 4 by 6 cards. More information relative to these important accessories for physicians, may be procured by writing the Company.

Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

Clinical Laboratory Methods and Diagnosis. A Textbook on Laboratory Procedures With Their Interpretation. By R. B. H. Gradwohl, M.D., D.Sc., Director of the Gradwohl Laboratories and Gradwohl School of Laboratory Technique; Formerly Director of Laboratories, St. Louis County Hospital; Pathologist to Christian Hospital; Director, Research Laboratory, St. Louis Metropolitan Police Department, St. Louis, Mo.; Commander, Medical Corps, United States Naval Reserve, Retired. Third Edition. With 726 Text Illustrations in Both Volumes and 57 Color Plates. St. Louis. The C. V. Mosby Company, 1943. Price $20.00.

A Surgeon's World. An Autobiography. By Max Thorek, M.D. J. B. Lippincott Compan, Philadelphia, New York. Price $3.75.

Personal and Community Health. By C. E. Turner, A.M., Sc.D., Dr. P.H., Professor of Public Health in the Massachusetts Institute of Technology; Former Associate Professor of Hygiene in the Tufts College Medical and Dental Schools; Sometime Member of the Administrative Board in the School of Public

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BOOKS RECEIVED (Continued)

Health of Harvard University and the Massachusetts Institute of Technology. Seventh Edition. St. Louis. The C. V. Mosby Company, 1943. Price $3.50.

Introduction to Physiological and Pathological Chemistry. With Laboratory Experiments. By L. Earle Arnow, Ph.G., B.S., Ph.D., M.B., M.D., Director of Biochemical Research, Medical-Research Division, Sharp & Dohme, Inc.; Professor of Chemistry, Bryn Mawr College Summer School of Nursing; Formerly Assistant Professor of Physiological Chemistry, University of Minnesota Medical School and Lecturer in Physiological Chemistry to Students in the University of Minnesota School of Nursing. With an introduction by Katharine J. Densford, B.A., M.A., R.N., Director of the School of Nursing and Professor of Nursing, University of Minnesota. Second Edition. Illustrated. St. Louis. The C. V. Mosby Company, 1943. Price $3.75.

Reaction to Injury. Pathology for Students of Disease Based on the Functional and Morphological Responses of Tissues to Injurious Agents. By Wiley D. Forbus, M.D., Professor of Pathology, Duke University and Pathologist to the Duke Hospital. 532 illustrations, 20 of which are in color. Baltimore. The Williams and Wilkins Company, 1943. Price $9.00.

Internal Medicine in General Practice: By Robert Pratt McCombs, Lieutenant, Medical Corps, United States Naval Reserve; Recently Instructor in Internal Medicine for the Statewide Postgraduate Program of the Tennessee State Medical Association. On leave of absence from the staffs of the Pennsylvania Hospital, the Abingdon Memorial Hospital and the Jefferson Medical College, Philadelphia. 694 pages with 114 illustrations. Philadelphia and London: W. B. Saunders Company, 1943. Price $7.00.

In no profession does culture count for so much as in medicine, and no man needs it more than the general practitioner.—*Osler.*

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NAME CHIEF CAUSES OF REJECTION OF 18-19 YEAR OLD REGISTRANTS

Eye Defects First Among White Youths and Educational Deficiencies Among Negroes, Selective Service Data Reveal

Eye defects were the chief cause of rejection among white 18 and 19 year old Selective Service registrants called up for physical examination by local boards and induction stations during December 1942 and January and February 1943, whereas for Negroes in the same age group and during the same period the leading cause for rejection was educational deficiency, Colonel Leonard G. Rowntree, Medical Reserve Corps, United States Army; Kenneth H. McGill and Thomas I. Edwards, Ph.D., Washington, D. C., report in *The Journal of the American Medical Association* for September 25.

The next nine leading causes of rejection among white registrants in decreasing order of occurrence were mental disease, musculoskeletal (muscle and bone) defects, cardiovascular (heart and blood vessel) defects, ear defects, hernia, neurologic defects, educational deficiency, underweight and mental deficiency.

The remaining nine leading causes of rejection among Negroes in the same age group were syphilis, cardiovascular defects, mental disease, musculoskeletal defects, hernia, eye defects, neurologic defects, mental deficiency and tuberculosis. Half of the rejections of Negro youths resulted from educational deficiency or from syphilis.

"In the following broad groups of defects," the authors explain, "white youths had higher rejection rates than Negroes: eyes, ears, nose, kidneys, nervous system, feet, endocrines, overweight and underweight.

"In the following broad groups of defects, Negro youths had higher rejection rates than white youths: tuberculosis, cardiovascular disease, hernia, genital disease, syphilis, gonorrhea, skin disease, educational deficiency, mental deficiency and mental disease."

It is explained that in compiling the data, registrants have been counted as rejected if they were not accepted for general military service. "However," the authors say, "a substantial number of registrants who were not acceptable for

general military service were inducted for limited service. If these men accepted for limited service only had been counted as inducted for the purposes of this paper the rejection rates would have been lower, particularly for rejections due to defective vision and musculoskeletal defects."

Of the white youths called up for physical examination, 23.8 per cent were rejected either at local boards or at induction stations, whereas the rejection rates for Negro youths was almost twice as high, 45.5 per cent.

The rejection rates for 18 and 19 year olds are only slightly lower than those for older registrants, but, the authors warn, "caution should be exercised in drawing conclusions from this since . . . a large proportion of physically fit youths were not liable for examination either (a) because of previous enlistment in the armed forces, (b) because of programs that postponed examination and induction until a course of training has been completed or (c) because of employment in war industry or agriculture.

"The most striking difference between the two racial groups concerns the high rate of rejections among Negroes for educational deficiency and for syphilis. Educational deficiency accounted for 121.7 rejections per thousand Negro youths examined, or for 26.7 per cent of all Negro rejections. Syphilis accounted for 112.0 rejections per thousand examined, or for 24.6 per cent of all Negro rejections. . . . Eye defects and mental disease, the leading causes of rejection among white youths, ranked seventh and fourth respectively among Negro youths. . . . Musculoskeletal defects are in third place among white youths and in fifth place among Negroes, cardiovascular defects are fourth in importance among white youths and third among Negroes. Ear defects and underweight appear on the list often leading causes of rejection among white youths but are not important as causes of rejection among Negroes. Conversely, syphilis and tuberculosis, listed among the first ten causes of rejection for Negroes, are lower in order of importance among white youths. . . ."

It is explained that determination of educational deficiency and of mental deficiency was made at induction stations on the basis of tests

(*Continued on page* 56)

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CAUSES OF REJECTION (Continued)

designed to measure the individual's capacity to absorb basic training.

The rejection rates, by broad occupational group, of the 18 and 19 year old registrants were as follows: for whites, emergency workers and unemployed 37.2 per hundred examined; farmers, 36.4; service workers, 25.8; laborers except farm and mine, 25.3; students, 23.0; operatives and kindred workers, 21.6; proprietors, clerical, sales and kindred workers, 20.9; professional and semiprofessional workers 20.5 and craftsmen, foremen and kindred workers 19.9. For Negroes, farmers, 58.0; laborers except farm and mine 46.0; emergency workers and unemployed 44.9; craftsmen, foremen and kindred workers, 39.6; operatives and kindred workers, 39.6; service workers, 35.9; students 31.6, and proprietors, clerical, sales and kindred workers, 26.9.

There were insufficient data for calculation of the rate on Negro professional and semiprofessional workers.

The information obtained by the authors was taken from a sample of 45,585 reports of physical examination at induction received at National Headquarters of the Selective Service System and representing physical examinations of 42,273 white and 3,312 Negro registrants.

METAL TUBES STILL NEEDED

Those toothpaste and shaving cream tubes that customers have been turning in for more than a year, have brought more than 1,000,000 pounds of vitally important tin into the nation's stockpile, according to the Tin Salvage Institute, an agent of the Metals Reserve Co., itself a subsidiary of the R.F.C.

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The metal that has been realized from this source has been used in both direct and indirect war work. It has gone into submarines, planes, radio equipment, tanks, engine bearings and the like. The need for it is no less now than it was a year ago, and he urged all druggists to continue their excellent work of gathering the tubes and turning them over to the wholesalers who will ship to the Newark plant.

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WARNS OF THE DANGERS UNDER WAGNER-MURRAY-DINGELL BILL

No Need for Revolution In Medical Education That Would Be Brought About By Measure, Journal Of The A. M. A. Declares

"Is the rate of progress in medical education in America so slow and the stage which it has attained so inferior and the hope of further progress so hopeless as to call for a revolution?" *The Journal of the American Medical Association* for October 23 asks in the second of three editorials on the Wagner-Murray-Dingell Bill. "Those who have observed this progress and present attainments," *The Journal* continues, "say emphatically 'No.' At the beginning of this century the American Medical Association first collected and published statistics on the medical school situation in this country. In 1904 it created a permanent Council on Medical Education and began a series of annual conferences. In 1909, at the time of the fifth annual conference, only 17 schools required two or more years of college work for admission. Many medical schools were private enterprises depending on tuition for support. A large number made the payment of such tuition almost the only standards of admission, and often of graduation. In 1906 there were 162 medical colleges in the United States, many of them little more than 'diploma mills.'

"The Council on Medical Education and Hospitals was without legal power; nor was it connected with any political or governmental agency. It achieved its results by advising and cooperating with medical schools, following thorough, impartial examination of curriculums, equipment, faculty and other requisites or essentials for teaching. Yet by 1943 the number of schools had been reduced to 76, whose standards of admission and whose quality of education were such as to place them among the foremost medical educational institutions in the world. This is still a larger number of medical schools than ex-

(*Continued on page* 59)

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ists in any other two nations combined; they are graduating as many physicians as did the much larger number of inferior schools existing at the beginning of the century.

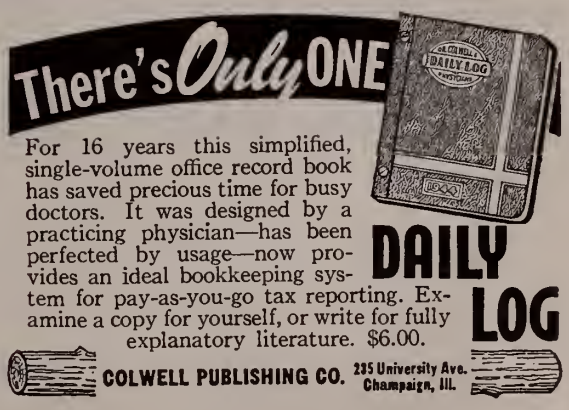
"Medical education is the necessary ingredient for quality in medical practice. Only through improved medical education comes the possibility of better and better service to the public, carrying with it reduction in morbidity and mortality and extension of the life period.

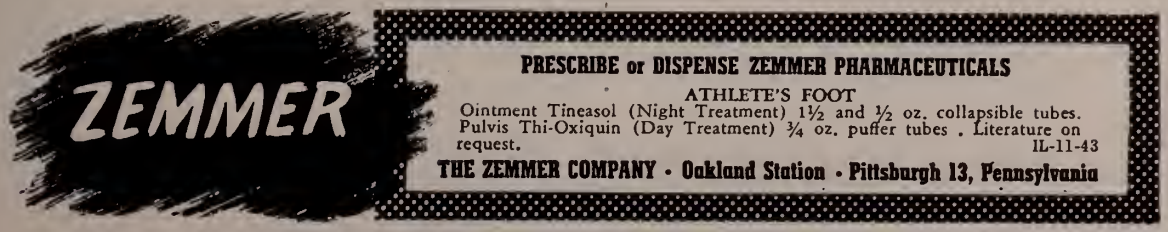
"There has been progress in medical education in other countries. In no other country, however, and certainly in none with compulsory sickness insurance, has the rate of advance been so rapid or the standards reached so high as in the United States. At the beginning of the century the superiority of European medical schools caused American physicians to flock to them to complete their education. Today the tide has been reversed. Physicians throughout the world seek American medical schools as the climax of their educational career. This period during which America outstripped the former world leaders in medical education was those years in which the physicians of the lagging nations were being forced into systems of compulsory sickness insurance.

"Compulsory sickness insurance in Germany put 'panel doctors,' or 'kassenaerzte,' in a class apart from private practitioners. Even the advocates of sickness insurance will scarcely claim that the titles applied to insurance physicians carry any certification of professional superiority. In other countries insurance practitioners do not have opportunities or inducements such as have led to extensive postgraduate work among general practitioners in America.

"The Wagner-Murray-Dingell Bill in section 1111 proposes an entirely new method, revolutionary in almost every point, for the support and control of American medical education. The Surgeon General of the United States Public Health Service is to make 'grants-in-aid' to such institutions as he thinks 'show promise of making valuable contributions to the education or training of persons useful to or needed in the furnishing of medical, hospital, disability, rehabilitation, and related benefits provided under this Act or to human knowledge with respect to the cause, prevention, mitigation, or methods of diagnosis and treatment of disease and disability.' Will the Surgeon General, whoever he may be, utilize the voluntary machinery set up by the medical profession and the medical schools to determine which institutions 'show promise'? This bill would destroy the voluntary organization now so effectively performing this task.

"Bureaucratic control of medical education will inevitably destroy the standards of excellence that now characterize the medical schools of America. Such a revolution in control could not well avoid disrupting the methods of selecting students which is essential to the preservation of the high personal qualifications and ethical integrity of the medical profession. Only a miracle could avoid temporary or permanent deterioration, if not complete destruction, or educational standards."





CITE VALUE OF PLASTER CASTS FOR THE TREATMENT OF BURNS

Close Fitting Ones On Extremities Provide Comfortable, Rapid And Uncomplicated Healing, Boston Doctors Report

Reporting on the results they obtained by use of close fitting plaster of paris casts in the treatment of burns of hands, arms and legs, Stanley M. Levenson, M.D., and Charles C. Lund, M.D., Boston, say in *The Journal of American Medical Association* for October 2 that "the prevention of swelling and the protection provided by the treatment have resulted in comfortable rapid, uncomplicated convalescences and in excellent functional results." They also say that the treatment is easy of application, the materials needed are widely available and of little bulk, and ideal protection against intercurrent infection and against the injury of transportation is afforded.

The use of plaster casts in treatment of various types of wounds and injuries is not new but the use of close fitting casts for burns of the extremities only recently has been the subject of investigation. The method used by Drs. Levenson and Lund involves no anesthesia, debridement nor cleaning except for the removal of large pieces of loose, hanging skin. One layer of sterilized petrolatum gauze is applied to the skin over the whole area to be covered by plaster. This layer is covered with four layers of sterile open mesh gauze, fitted carefully without overlapping. Very thin plaster slabs are then moistened and molded over the extremity front and back. A thin layer of rolled plaster completes a nearly skin tight, light, well fitting plaster which extends 3 to 4 inches above the burn.

The original cast is left in place for fourteen days. If the burn has not healed at that time another cast is applied and left for another fourteen days. Further treatment after four weeks, if necessary, is by other methods. Among the important points in favor of their method is that of comfort. They treated 22 patients and say that "from the start of treatment to complete healing the lack of pain experienced by these patients has been remarkable. As soon as the cast is applied, pain disappears. . . ."

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RADIUM — COMPLETE SERVICE AVAILABLE. — Radium for sale, lease, rent and exchange; new Radium forms constructed from old types; Radium applicators for sale; Radium detectors available with or without services of technician; directed by experienced radiologist (Fellow of AMA) QUINCY X-RAY AND RADIUM LABORATORIES (Established 1919), Quincy, Illinois. Telephone 5200.

WANTED TO BUY — New or Used medical equipment, physio therapy and lab. apparatus, microscopes, instruments, etc. Medical Arts Supply Co. 500 South Wolcott St.

FOR SALE: Used Westinghouse x-ray and Standard radiographic flat bucky table and bucky diaphragm. All in first class condition. Write Mrs. O. P. Hamilton, Forrest, Illinois.

FOR SALE: Copies Illinois Medical Journal, 1912-1942. Any other book or periodical — any subject or date. What do you need? BLACK ARCHER PRESS, 5322 Ludlum Ave., Chicago 30, Illinois.

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PHYSICIAN AVAILABLE: — Physician in general practice is available for institution or office in Illinois. Middle-aged, married, native, gentile, A1 medical school. 705 Olive St., Room 629, St. Louis 1, Mo.

PATIENTS ARE TURNED AWAY BECAUSE OF NURSE SHORTAGE

Shortage of nurses is compelling some hospitals to turn away patients and service standards are going down despite efforts to recruit "women in white." While more and more skilled nurses are being drawn into military service and industry, the number of patients in hospitals is increasing, judging from information based on reports to the U. S. Public Health Service released by the Office of War Information.

Increased war production has jumped industrial accidents to an estimated 2,500,000 — more than a third over the 1939 level. Secretary of Labor Frances Perkins states that more than 2,000 workers suffer disabling injuries in manufacturing plants every day. And disease is given new holds by crowded living conditions and relaxed sanitary standards.

To meet growing war needs for nurses America will need 359,000 nurses next year — 100,000 more than are now available. Of this number 66,000 would go to the military services, 293,000 to civilian practice. — *Science News Letter*, August 28, 1943.

IMPORTANT ECONOMIES NOW MAKE IT POSSIBLE TO PRESCRIBE THE MOST POTENT ANDROGENIC SUBSTANCES TO A WIDER GROUP OF PATIENTS . . .

because . . .

PERANDREN,* pure synthetic testosterone propionate, has been reduced 10 per cent in price. Being the most effective androgen available for intramuscular administration, this product has assumed greater importance in a growing list of indications and consequent savings are normal reflections of increased use.

because . . .

METANDREN* TABLETS, orally active form of methyltestosterone intended for ingestion therapy, have been reduced by 37½ to 40 per cent. Here, too, the extensive use of this substance in medical practice has made possible production economies rightfully passed on to the patient.

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The ILLINOIS Medical Journal

VOL. 84 NO. 6

December, 1943

To Our Friends

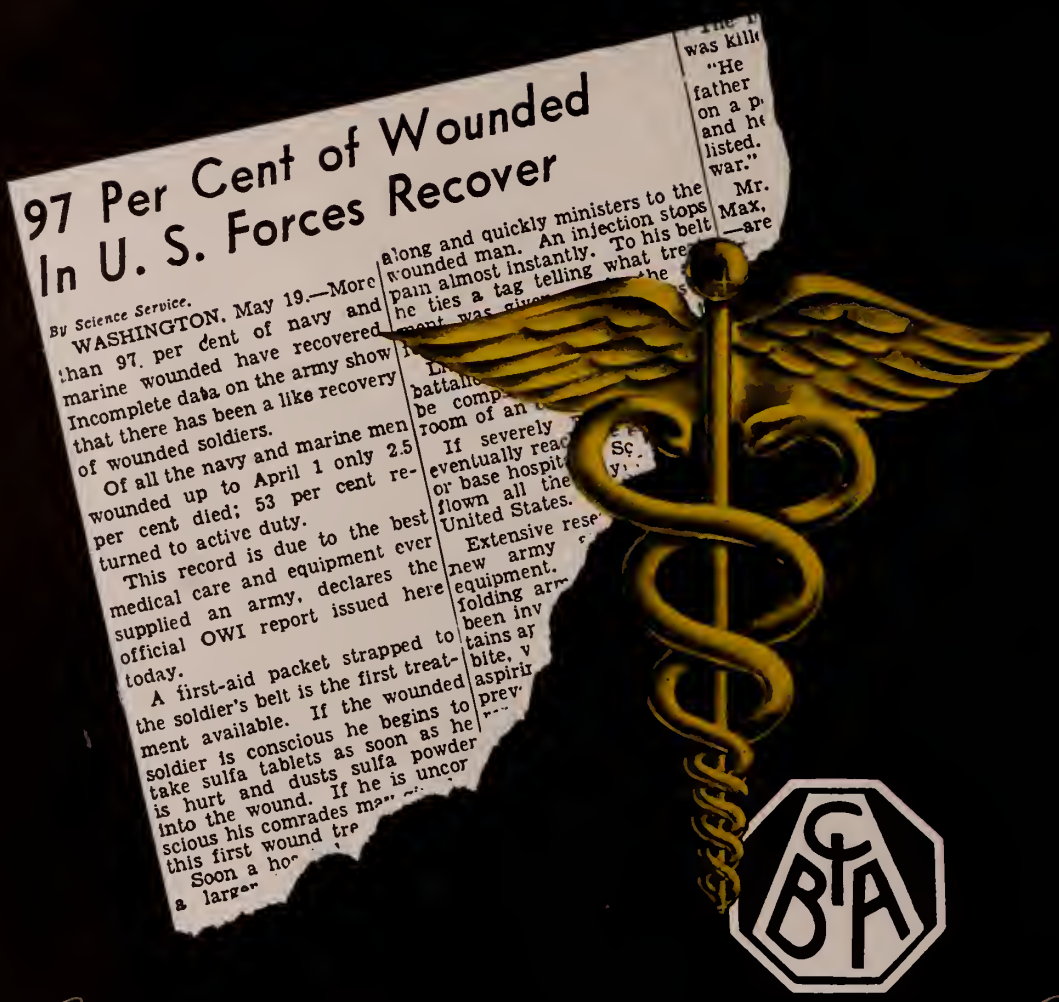
At Home and Overseas

The Journal Sends

Greetings and Good Wishes

(See page 27 for Table of Contents)

OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY



Salute to Distinguished Service

● It is a tribute to the Medical Corps of the fighting forces and to American research that *more than 97 per cent of Navy and Marine wounded recover,* and that 53 per cent return to active duty. Present Army records show like recovery of wounded soldiers.

Such a record could not have been established without skilled medical care in the field —and without products of American pharmaceutical manufacturing laboratories . . . always searching for improvements in existing preparations, always seeking new and more effective medicaments.

As one of these manufacturing laboratories, Ciba salutes the Medical Corps of the American Armed Forces for brilliant use of vital therapeutic aids.

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supplying non-irritating, lubricating bulk

without vitamin absorption or

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This highly purified hemicellulose is available in 4-oz. and 16-oz. bottles as Mucilose Flakes and Mucilose Granules.

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NEW YORK KANSAS CITY **DETROIT, MICH.** SAN FRANCISCO WINDSOR, ONTARIO
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Entered as Second-Class Matter July 21, 1919, at the Post Office, Oak Park, Illinois, under the Act of March 8, 1879. Acceptance for mailing at special rate of postage provided for in Section 1102, Act of October 8, 1917, authorized July 15, 1918. Office of Publication, 715 Lake Street, Oak Park, Ill.

The DRUG *of the* YEAR . . .

SULFADIAZINE

Lederle

THIS DRUG HAS RECEIVED unprecedented approval from the medical profession throughout the world. It is fair comment to say that the year 1943 will see sulfadiazine proving its usefulness daily in the farthest corners of the earth.

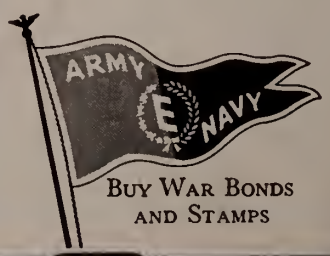
The literature is too voluminous even to enumerate, but its tenor may be indicated by the fact that 88 well known authors have concurred in recommending this drug for—

- PNEUMOCOCCIC PNEUMONIA
- HEMOLYTIC STREPTOCOCCAL SYSTEMIC INFECTIONS (including erysipelas and streptococcal pneumonia)
- SURGICAL INFECTIONS CAUSED BY HEMOLYTIC STREPTOCOCCI, STAPHYLOCOCCI AND MIXED INFECTIONS (including cellulitis, acute osteomyelitis and similar infections)
- BURNS
- GENITOURINARY INFECTIONS CAUSED BY *E. coli*, *A. aerogenes and Shigella dispar* (including pyelitis, pyelonephritis, cystitis)
- SCARLET FEVER SEPTIC COMPLICATIONS (including mastoiditis)
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- ACUTE MENINGITIS (meningococcic, mixed bacterial, or of unknown etiology)



PACKAGES:

Sulfadiazine is available in all the usual forms. Literature, bibliography and prices will be sent upon request.



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Parke-Davis Announces:

• The application of its distinctive Immunogen* principle to the production of a new cold vaccine, oral and parenteral—

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• Combining the immunizing properties of whole bacterial vaccine with water soluble, surface antigens, or ecto-antigens, means—

MAXIMUM ANTIGENIC PROPERTIES WITHOUT INCREASED REACTIVITY

• **Each enteric coated tablet of IMMUNOVAC Cold Vaccine, for oral use, represents:** •

WHOLE KILLED BACTERIA

Pneumococcus (Diplococcus pneumoniae)	30,000 million
Streptococcus (hemolytic and non-hemolytic)	15,000 million
Hemophilus influenzoe	2,500 million
Neisserio cotorrhalis	2,500 million
Stophylococcus, aureus ond albus	3,000 million
Klebsiella pneumonioe (Friedlander bocillus)	1,000 million
Corynebacterium pseudodiphthericum (pneudodiphtherio bacillus)	1,000 million

ECTO-ANTIGENS

Pneumococcus (Diplococcus pneumonioe)	2,000 million
Streptococcus (hemolytic and non-hemolytic)	2,000 million
Hemophilus influenzae	2,000 million
Neisseria catorrhalis	2,000 million
Staphylococcus, oureus and olbus	2,000 million

*TRADE-MARKS REG. U. S. PAT. OFF.

• **IMMUNOVAC** prophylactic therapy seeks to reduce the incidence and severity of symptoms of the common cold and other respiratory infections. This year, of all years, your patients must avoid colds, if at all possible, in order to stay well and "on the job" producing the materials for victory.

• One tablet of **IMMUNOVAC** Cold Vaccine, Oral, each morning (preferably taken on an empty stomach) for seven consecutive days, constitutes the initial step in immunization. To augment and maintain immunity, two tablets are taken weekly throughout the cold season.

IMMUNOVAC Cold Vaccine, enteric coated tablets for oral use, is available in bottles of 20, 100, and 500 enteric-coated tablets.

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(5, 7-diiodo-8-hydroxyquinoline)



A PRODUCT OF

INDICATIONS: . Acute and chronic amebic dysentery and asymptomatic amebiasis; Trichomonas hominis.

DESCRIPTION: . A double-iodine compound containing *63.9% iodine.*

ACTION: . . . Protozoacide effective by *oral* administration.

ADVANTAGES: . Does not cause purgation; relatively insoluble; large dosage permissible.

DOSAGE: . . . Diodoquin tablets may be given freely without fear of intestinal irritation. 7-10 tablets (22.4 to 32 grs.) daily for 16 to 20 days are recommended, depending upon the apparent severity of the infestation.

HOW SUPPLIED: Bottles of 50 and 500 tablets, each tablet containing 3.2 grs.



SE

RESEARCH

DIODOQUIN PRESENTS a double iodine compound possessing *potent and dependable amebicidal action,* together with a *wide margin of safety* in clinical use.

THE INTRODUCTION of this outstanding form of treatment for amebiasis and amebic dysentery is of utmost importance at this critical time.

WITH MILLIONS of military personnel distributed throughout the world, including the tropics, the subject of amebiasis takes on an added interest at home as well as in the war zones. Clinicians are on the lookout for carriers as well as for cases presenting mild and vague gastrointestinal symptoms.

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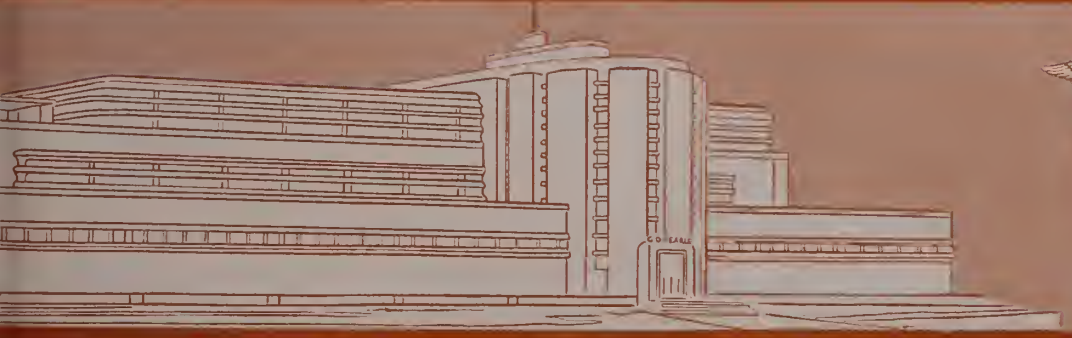
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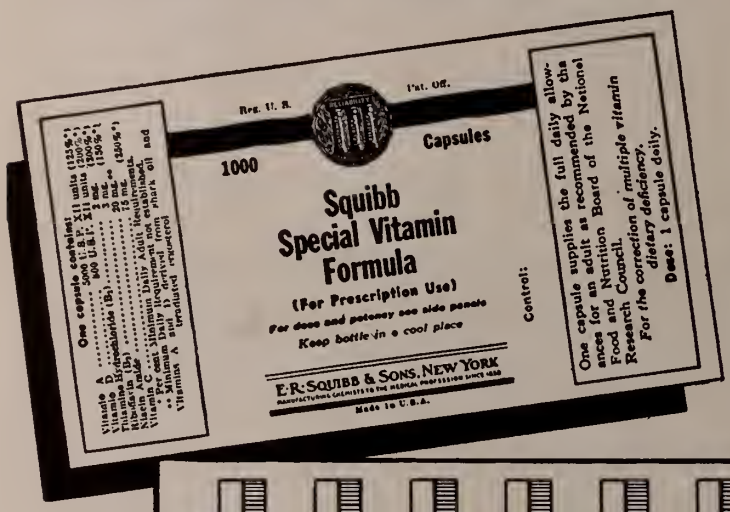
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One capsule supplies the optimal vitamin supplementation as recommended by the Food and Nutrition Board, National Research Council.

NOTE THE NAME

It's easy to prescribe since there is no trade name to remember.

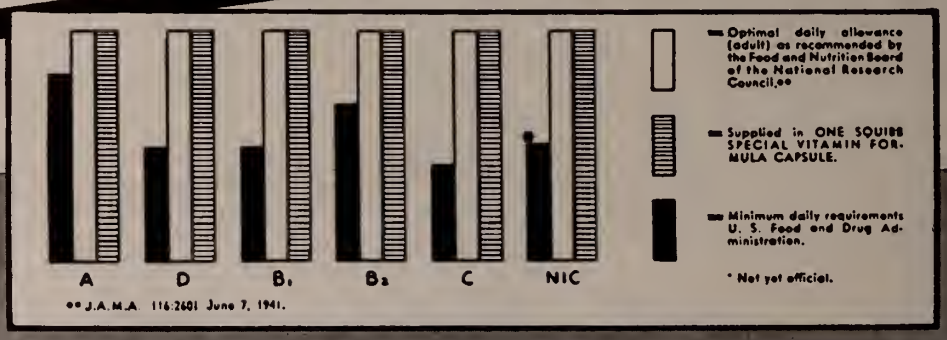
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Only one capsule daily.

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Most druggists will fill your prescription at same cost per capsule whether you prescribe 10 capsules or 100—generally about 6 or 7 cents per capsule.

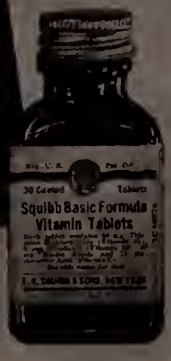
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Spies[1] in reporting the nutritional rehabilitation of one hundred selected industrial workers states, ". . . we have used a basic formula composed of a mixture of the water-soluble vitamins in treating the clinical syndromes of beriberi, pellagra, riboflavin deficiency and scurvy. This formula contains 10 mg. of thiamine, 50 mg. of niacin amide, 5 mg. of riboflavin and 75 mg. of ascorbic acid. When the symptoms of one deficiency predominate, more of the vitamin specific for the predominating deficiency is added." This is the same formula also used successfully by Jolliffe and Smith[2]—the same formula you get when you specify SQUIBB BASIC FORMULA VITAMIN TABLETS.

(1) Spies, T. D.: *J. A. M. A.* 122:911, July 31, 1943.
(2) Jolliffe, N., and Smith, James J.: *M. Clin. North America* 27:567, March 1943.

For further information write the Professional Service Department, E. R. Squibb & Sons, 745 Fifth Avenue, New York 22, N. Y.

- PREMENSTRUAL TENSION
- DYSMENORRHEA
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Require EFFICACIOUS LUTEAL THERAPY



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Sore Throat

ACCURATE forecasts predict a tremendous increase in sore throats but they will be the kind that no medication will help. Commando victims will seldom recover.

However, there are thousands of sore throats that can be helped. NUPORALS* *contain the excellent anesthetic,* NUPERCAINE* *which affords prolonged relief from local distress. The lozenge dissolves readily in the mouth and the anesthesia develops quickly.*

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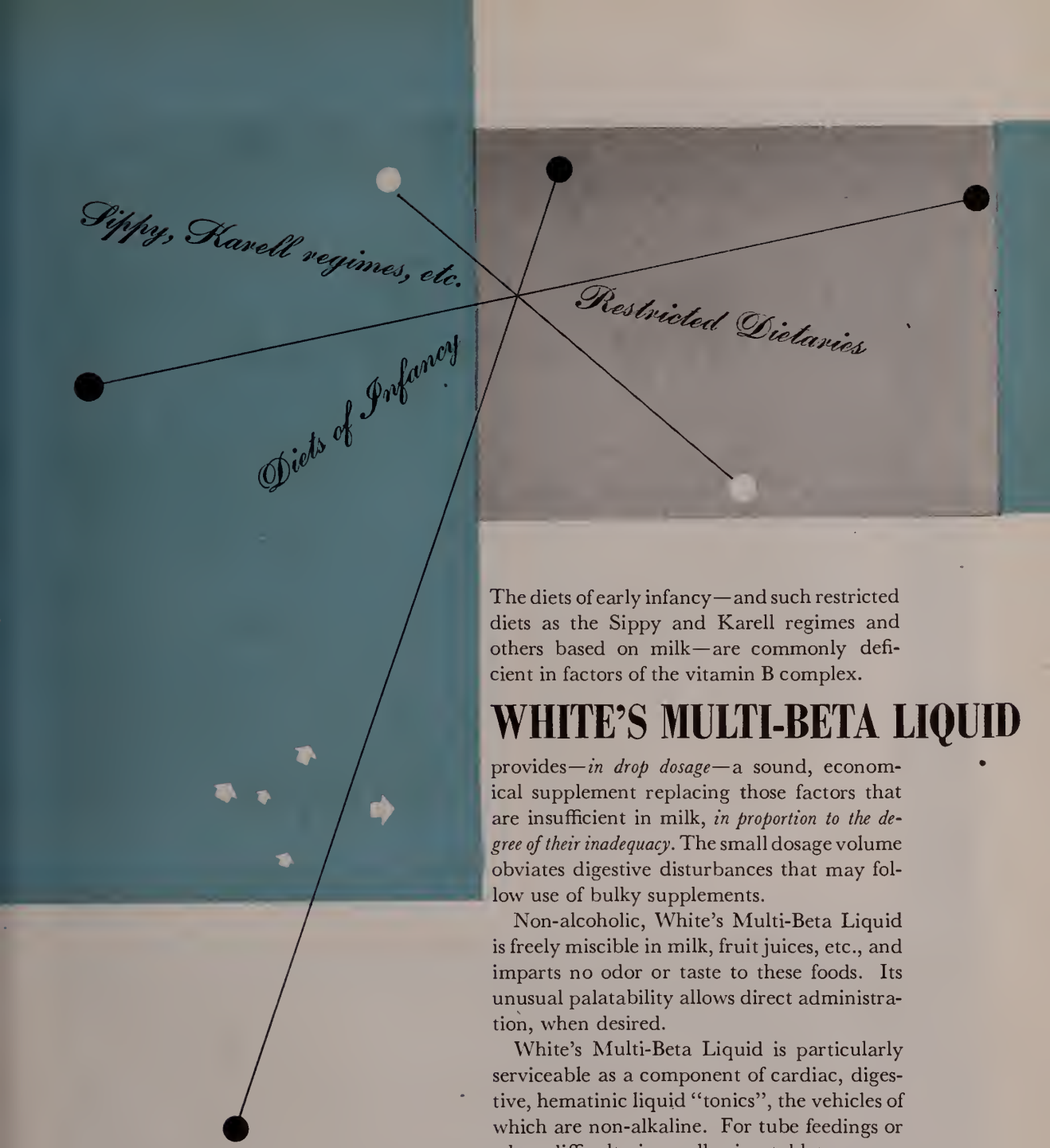
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provides—*in drop dosage*—a sound, economical supplement replacing those factors that are insufficient in milk, *in proportion to the degree of their inadequacy*. The small dosage volume obviates digestive disturbances that may follow use of bulky supplements.

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MERRY Christmas?

You are a healer, a saver of life . . .

Yet, this Christmas you see a world intent on maiming, on killing.

You wish you were out where the wounded and dying are, doing everything in your power for them . . .

But, circumstance holds you and commands, "Stay, do your work here—where the need for it is greater than ever before!"

Because today twice as many people are dependent upon your skill, no hour of day or night is completely and certainly your own...

Not even at Christmas.

So, to wish you a *merry* Christmas at this time would be to wish you the impossible.

However, the House of Wyeth—dedicated, too, to the relief of suffering—does wish that on Christmas Day you find a moment to yourself . . .

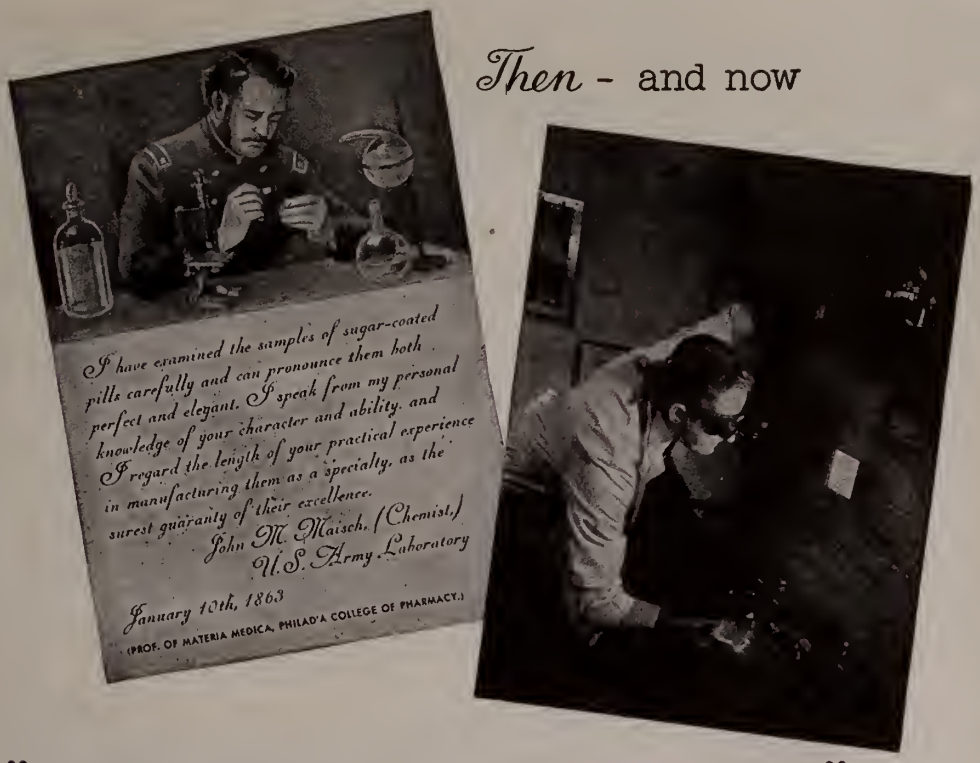
To hope, to believe, that this time the maiming and killing of war are being endured for the last time . . .

To be thankful for the wonderful healers and healing techniques that are coming out of the war to serve the peace . . .

To take pride in the glorious achievements of your professional brothers in uniform . . .

And to feel that your own service, wearying and unheroic though it be, is appreciated—and in the finest traditions of the selflessness of the medical profession.

WYETH
INCORPORATED



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Today we would take exception to the adjective "perfect" for we believe that perfection, like an ideal, is worth striving for but rarely attained. And so, eighty years later, we keep striving for perfection, convinced that any improvement, any new discovery in the making of therapeutic agents is happily worth while, though perhaps never perfect. Such, above all, is the creed of the men and women of the Warner Institute for Therapeutic Research. Their well-directed efforts toward discovering new and better means for the prevention and relief of human ills were never more earnestly pursued than at this time when, as in 1863, a national emergency urgently demands the help of all of us in safeguarding the health of combatant and civilian alike.

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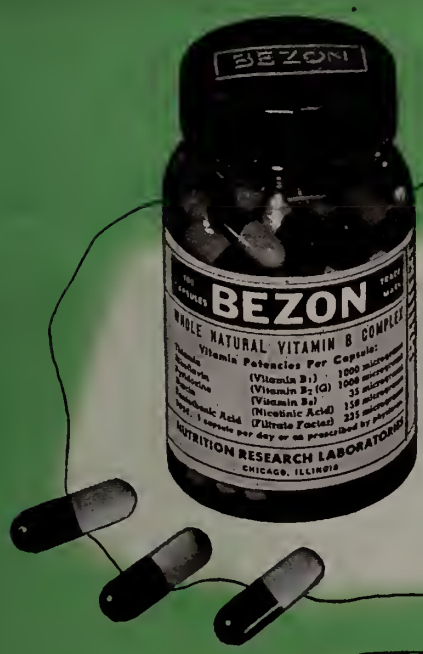
BEZON is *Whole Natural* Vitamin B Complex, concentrated to high potency from natural sources—no synthetic vitamin factors are added. Only in the *Whole Natural* Vitamin B Complex can *all* 22 vitamin B factors be obtained.

BEZON is made only in the distinctive two-color gelatin capsule. Supplied in bottles of 30 and 100 capsules.

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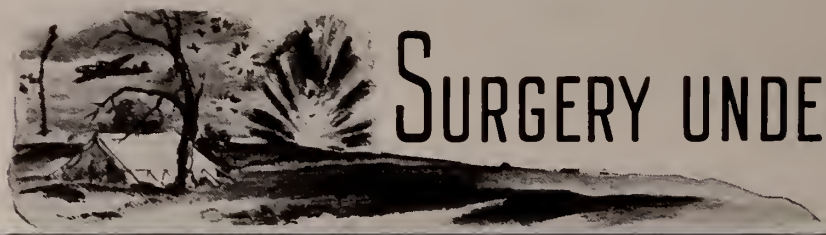
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December, 1943

VOL. 84, NO. 6

The Illinois Medical Journal

Official Journal of the Illinois State Medical Society

EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls, Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry S. Gradle, Harry Culver, Walter Stevenson, Raymond W. McNealy.

Editorials

TO OUR CONFRERES IN SERVICE

This December number of the Illinois Medical Journal is the last to be published during 1943. In the past year we have endeavored to give you the medical news from home and to schedule papers which would be of interest to all of you. Illinois has contributed freely to the number of physicians with the armed forces. At the present time it is believed that at least one-third of the total number of physicians in practice in January, 1942, are now in some branch of the service.

Your many confreres at home who are carrying on to the best of their ability, send their greetings to each of you in the zone where you are now serving. We know that many of you may not be where you would like to serve, but that is a matter not within our control, and those responsible for your present placement know the needs of our armed forces better than anyone else. Even though you may be a thousand or twelve thousand miles from home, those who are endeavoring to carry on during your absence, desire to express their best wishes to each and all of you during the Holiday Season.

We are all looking forward to the day when we can once more greet you and welcome you home. We will do everything possible to see that you get back into practice as soon as possible after your demobilization.

The Illinois Medical Journal is ever anxious to publish things you desire to see in print, and will welcome suggestions from you at any time. Likewise we will publish papers received from you on any subject you believe is of general interest and which will not violate the present censorship regulations. We also will appreciate your sending items of interest to those of us who remain at home, and we will endeavor to publish them regularly in this Journal.

All of you are participating in the greatest and most widespread war this world has ever known. From the many encouraging reports given in the form of statistics we know that each of you is doing his part in the excellent medical program given to our men in service.

So, to you in service, we send our best wishes and hope that in a relatively short time you will have finished your work and will return home where we can once more greet you individually and assure you of that type of welcome which you so justly deserve.

AMERICAN MEDICAL ASSOCIATION COUNCIL ON MEDICAL SERVICE AND PUBLIC RELATIONS

In the November 1943 issue of the Illinois Medical Journal, there was published a statement of general policies of the new A. M. A. Council. Elsewhere in this issue is published "The Purposes and Functioning of the Council

on Medical Service and Public Relations", this information being released late in November.

The organization of the Council is outlined in this interesting release, then the plans to carry its functions and operations to the state and county levels, it is desired that each State Medical Society name a new committee, or designate an existing committee to function with the Council at the state level. Likewise it is desired that all county medical societies also designate or form a committee in connection with this program.

State and county committees are urged to keep the Council fully informed of their local problems and activities. The Council proposes to keep the State groups thoroughly informed as to pending national legislation and bureau directives affecting the practice of medicine.

Activities of the Council will be submitted for publication in the Journal of the American Medical Association and the State Society Journals, and the Council will also prepare and release information on medical care.

This new Council was authorized by the A. M. A. House of Delegates at the last annual session in Chicago, and the organization was under way within a short time after the meeting. It is believed by those who were responsible for its organization, as well as members of the House of Delegates, that the Council on Medical Service and Public Relations of the A. M. A. will be of inestimable value to the Association, to state and county medical societies, and to the entire medical profession throughout the United States.

It is quite obvious that in order to aid the Council so that it may function to the best advantage, all state and county societies must cooperate by naming their respective committees at the earliest possible moment. Every county medical society in Illinois will be fully informed as to the work of the Council and urged to name or designate their respective committees before this article is published.

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Original articles and membership correspondence to Dr. Harold M. Camp, Monmouth, Ill.

Society proceedings and news items and changes in the mailing list to Managing Editor, 30 N. Michigan Ave., Chicago 2, Illinois.

Subscription price of this JOURNAL to persons not members of the Illinois State Medical Society is $3.00 per year, in advance, postage prepaid, for the United States, Cuba, Porto Rico, Philippine Islands, Hawaiian Islands and Mexico. $4.00 per year for all foreign countries included in the postal union. Canada, $3.50. Single current copies, 50 cents.

NATIONAL PHYSICIANS' COMMITTEE FOR THE EXTENSION OF MEDICAL SERVICE

During recent months officers of the Illinois State Medical Society have received many letters from physicians asking for information concerning the National Physicians' Committee for the Extension of Medical Service, and invariably asking if the State Medical Society has given official approval to the organization and its work.

Replies have always been sent to all inquirers telling of the organization of the National Physicians' Committee four years ago with its Chairman a Past-President of the American Medical Association, and with a considerable number of its Board of Trustees and officers physicians who have occupied prominent places in the field of medicine and in the activities of the A. M. A. over a period of many years.

They were told that although no official approval had been given by the Illinois State Medical Society, we had been informed that more voluntary subscriptions had been made for a continuance of its work by Illinois physicians than by physicians in any other state. They were informed that the N. P. C. was a non-political, non-profit organization for maintaining ethical and scientific standards, and for extending medical service to all the people. The Committee was 100% favorable to the proposition that the classical physician-patient relationship must be maintained if the American people are to continue to receive the highest type of medical care received by any nation on this earth.

The activities of the National Physicians' Committee were approved by the House of Delegates of the American Medical Association at the 1942 annual meeting. This information likewise was given to all inquirers. At a recent meeting of the Council of the Illinois State Medical Society, the recent activities of the N. P. C. were outlined relative to its endeavor to combat (through a national educational campaign) the promotion of Federal subsidized programs for the providing of medical care to the people of the United States, as has been contemplated in the Wagner-Murray-Dingell Bill (S. B. No. 1161).

The Council unanimously passed a resolution to approve the present activities of the National Physicians' Committee. It was related that many million copies of their very timely brochures have been widely distributed throughout the country. Hundreds of newspapers, journals and magazines have received this material, and many have made some interesting editorial comments opposing the enactment of the type of legislation proposed in Senate Bill No. 1161.

The N. P. C. has depended entirely on voluntary subscriptions to carry on its work. It has recently released a financial statement showing the contributions received for the year ending October 31, 1943, and the expenditures over the same period of time. Copies of the literature which has been widely distributed throughout the country, have been mailed to every registered physician in the United States. We are informed that as many additional copies of these releases may be procured free as are desired.

To procure this material or to secure any other information which may be desired, address the National Physicians' Committee for Extension of Medical Service, Pittsfield Building, Chicago, 2, Illinois.

THE 1944 ANNUAL MEETING

The Illinois State Medical Society plans to hold the 1944 annual meeting at the Palmer House, Chicago, where interesting and well attended meetings were held in 1941 and 1943. At a recent meeting of the Committee on Scientific Work plans for the scientific programs to be scheduled were carefully considered. Again it is the concensus of opinion that more joint sessions with all scientific sections participating, will be scheduled, and that less time should be devoted to the programs of the individual sections.

With a war in progress and with thousands of Illinois physicians in the services of their country, special efforts will be made to extend invitations to the men in service who can be present, to come and participate in the deliberations.

It is the desire of those responsible for the arrangements to schedule papers which will be of general interest rather than highly technical subjects of interest to a small percentage of the members of the State Medical Society.

As has been the case at previous meetings, all sessions will be held in the Palmer House, as will the display of both technical and scientific exhibits.

Physicians desiring to present papers before joint sessions or before individual meetings of the scientific sections, should communicate at the earliest possible moment with the proper section officers whose names and addresses will be found in this issue of the Illinois Medical Journal.

Dr. Harry M. Hedge, 30 N. Michigan Avenue, Chicago, 2, has been selected to act as General Chairman of the Committee on Arrangements and he is most anxious to do everything possible to aid in making the 1944 annual meeting a highly successful affair. His committees will be announced at an early date and will be published in the January issue of the Journal.

Even though physicians throughout this state (as throughout this nation) are working longer hours and seeing more patients as a result of war and a decreased number of physicians remaining in civilian practice, they should arrange to take time off and come to their State Society Annual Meeting which will be held in Chicago on May 16, 17, 18, 1944.

During the next few months until the meeting is held, important announcements will be carried in the Illinois Medical Journal each month. The official program for the meeting will be published in the May issue.

Any member of the State Medical Society desiring to present a paper should write to the proper section officer telling the title of the paper, and giving a short synopsis of the material he has in mind for the paper. In this way the officers of the sections will be better enabled to tell whether or not they are willing to schedule the paper for the program for which they are responsible.

In accordance with the usual custom in this Society there will be no registration fee, and all members of the State Medical Society or medical officers in uniform will be permitted to register and participate in the deliberations throughout the meetings.

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THE PURPOSES AND FUNCTIONING OF THE COUNCIL ON MEDICAL SERVICE AND PUBLIC RELATIONS OF THE AMERICAN MEDICAL ASSOCIATION

The Council was authorized by the House of Delegates of the American Medical Association at its annual session in Chicago in June, 1943. The members of the Council were immediately appointed by the Board of Trustees. Section 4 of Chapter IX of the By-Laws provides that the duties of the Council shall be as follows:

"(1) To make available facts, data and medical opinions with respect to timely and adequate rendition of medical care to the American people;

"(2) to inform the constituent associations and component societies of proposed changes affecting medical care in the nation;

"(3) to inform constituent associations and component societies regarding the activities of the Council;

"(4) to investigate matters pertaining to the economic, social, and similar aspects of medical care for all the people;

"(5) to study and suggest means for the distribution of medical services to the public consistent with the principles adopted by the House of Delegates, and

"(6) to develop and assist committees on medical service and public relations originating within the constituent associations and component societies of the American Medical Association.

"In the exercise of its functions, this Council, with the cooperation of the Board of Trustees, shall utilize the functions and personnel of the Bureau of Legal Medicine and Legislation, the Bureau of Medical Economics and the Department of Public Relations in the Headquarters Office."

The Council is also bound by the actions of the House of Delegates on the subject of medical care and its distribution, notably the platform adopted in 1937 as amended and amplified in subsequent years by the various resolutions and reference committee reports adopted by the House of Delegates.

In order to carry out these functions, the Council has organized as follows:

Organization

Officers. — The Council shall elect annually:

A chairman.

A vice-chairman.

A full-time secretary.

An executive committee of three shall be created, which shall include the Chairman, the Council member of the Board of Trustees, and a third member to be chosen annually from the duly appointed or elected members of the Council on Medical Service and Public Relations. This committee shall exercise such functions as are delegated to it by the Council.

The central office of the Council is to be located in the office building of the American Medical Association in Chicago, Illinois.

The functions of the Council outlined in the By-Laws are closely integrated and cannot well be considered separately. To carry them out it is obvious that the Council must have adequate sources of information, maintain close contact with constituent associations and component societies, and establish close relationship with the already existing Bureaus and Departments of the Association.

The Council, therefore, subject to the approval of the Board of Trustees, has decided on the following method of operation:

1. In carrying out the directive in the By-Laws as to relationship with the other Bureaus and Departments of the Association, the Council has established close collaboration (a) with the Bureau of Medical Economics, which has been asked and has expressed the willingness to do the research on many of the economic problems necessary for the Council's study, and which is well equipped to carry out such research; (b) with the Bureau of Legal Medicine and Legislation. Joint bulletins will be issued with that Bureau on legislative matters. Attempt will be made to effect wider distribution and, if necessary, more frequent publication of such bulletins; (c) with the Department of Public Relations. The Council shall utilize the sources of information of this department and joint bulletins may be issued from time to time with it, and if indicated with other bureaus of the American Medical Association. All planning will be to avoid overlapping of functions and duplication of effort.

2. The Council on Medical Service and Public Relations has extended the sources of information of the American Medical Association on problems with which the Council is specifically concerned. Through its membership and by cooperation with constituent associations and component societies and the utilization of other facilities, the Council will disseminate such information toward effecting its objectives. The Secretary of the Council, with its approval, will undertake such travel as may be necessary.

3. In order that constituent associations and component societies may be kept informed of the activities of the Council, and of proposed changes in the status of medical care, and that the Council may be of assistance to those associations and societies, the Council has requested each State Association to designate an existing committee or create a new committee to function with the Council on a State level.

Each State organization has also been requested to contact each component society in the State and ask it similarly to designate or form a committee to function in connection with the programs of the Council. Where such organization is feasible, it has been suggested that committees be created along the lines of congressional districts.

Such State and county committees have been urged to keep the Council informed of their local problems and activities.

State organizations also will be requested from time to time to conduct experiments in the various methods of medical care and to inform the Council of their results so that the Council may study and evaluate the experiments and transmit the information acquired to all concerned.

4. The Council feels that under its directive it is its duty to endeavor to evolve such modifications of our present system of medical care as may be necessary to cover all the people and be in accord with the traditions of American Medicine as to high standards of medical care and the American tradition of free enterprise as already outlined in paragraph 1 of the Council's Policies previously published. To accomplish this, study must be made of all economic, social, and similar aspects of such care.

5. In order that the above program may be effectively carried out, the Secretary of the Council, with the guidance of the Council in conformity with the above expressed relationships with other Bureaus and Departments, shall inform the profession through the various State organizations of all pending national legislation and bureau directives affecting the practice of medicine. It shall likewise be his duty with the guidance of the Council, to arrange for medical representation at meetings and hearings pertaining to medical care, collaborating in the representation with other Councils and Bureaus of the American Medical Association who have an interest in this same subject.

6. The Secretary is instructed with the supervision of the Council, and in collaboration with the Department of Public Relations, to disseminate information concerning the activities of the Council through the publications of the American Medical Association and the various state medical journals, and to prepare and release information on medical care.

The Council has already issued its Statement of General Policies, and it will act in accordance with those Policies and the above method of functioning.

One thing the depression taught us, that human lives cannot be departmentalized — ignorance, poverty and ill health are not isolated problems; too often they have proved themselves a vicious circle of cause and effect. Paul V. McNutt.

CHICAGO OFFERS OPPORTUNITIES FOR POST-GRADUATE STUDY

The Post-Graduate and Scientific Service Committees of the Illinois State Medical Society are pleased to present the following information on opportunities available to doctors who may be in Chicago for a few hours or for several days. This is in addition to the information given in the November Journal.

University of Chicago School of Medicine, Public Conferences and Seminars.

Monday

4:30 P.M. Surgical Clinical Conference—Room P-117
7:00 P.M. Fracture Conference — Room M-137
8:00 P.M. Biology Club — Room P-117 (Second Monday of Month)

Tuesday

7:00 P.M. Seminar in War Psychiatry — Room M-137

Wednesday

3:15 P.M. Pediatrics - Roentgenology Conference — Room BR-259
4:30 P.M. Medical Conference — Room P-117
4:30 P.M. Obstetrics and Gynecology Clinical Conference — Dora DeLee Hall
6:45 P.M. Roentgenology Seminar — Room P-117

Thursday

8:00 A.M. Surgical Seminar — Room P-117
4:00 P.M. Bacteriology Club — Ricketts North Room 7 (Third Thursday of month)

Friday

4:30 P.M. Clinical Pathology Conference — Room P-119

Tuberculosis has been present for so long and people are so accustomed to it, that the interest of the public and of many public health workers is in danger of being sidetracked to more glamorous and exciting problems. This is a serious deterrent to accomplishment in this field. Further, the decline in tuberculosis, both in morbidity and mortality, in the last 40 years, may lead some to think that the problem is one of the past. Let there be no mistake in this direction. Tuberculosis continues to be a real problem. If, instead of comparing the tuberculosis rate of today with what it was 50 years ago, one will compare the tuberculosis prevalence and mortality of other diseases, today's prevalence and mortality of other diseases, the present seriousness of the tuberculosis problem can be appreciated. In the most productive period of life, tuberculosis continues to cause more deaths than any other one disease. Ed., Amer. Jour. Public Health, July, 1943.

Correspondence

ILLINOIS PUBLIC AID COMMISSION
OFFICIAL BULLETIN NO. 50

To: Official Communications List
Local Authorities

Re: PAYMENT OF MEDICAL AND HOSPITAL COSTS BY TOWNSHIPS AND COMMISSION COUNTIES

Responsibility for "Non-paupers." Townships and commission counties are required by law (Par. 25, Ch. 107, Ill. Rev. Stat. 1941) to provide and pay for the necessary medical and hospital expenses of persons who, although not receiving relief, do not have sufficient money or property to pay for such care. Rule 4 of Section II of the Rules and Regulations of the Illinois Public Aid Commission specifies the method to be followed in determining whether a person does or does not have "sufficient money and property." Persons requiring this type of care who do not have money or property to pay for it have been designated "non-paupers," a term employed for convenience.

Responsibility for Paupers. This responsibility for meeting costs of medical or hospital care for non-paupers is in addition to the duty of townships and commission counties to provide such care for cases receiving relief.

Responsibility for Old Age Pension Recipients. Recipients of Old Age Pension grants are deemed to be "non-paupers," and townships and commission counties are required to provide and pay for medical or hospital care which these recipients cannot provide for themselves out of their grants or which they or their legally responsible relatives cannot pay for out of other income, assets, or resources which may be available to them. In the case of any recipient of Old Age Pension who needs medical or hospital care, the township or commission county shall, before authorizing the provision of medical or hospital care, determine if the current grant of the recipient can be increased. If the recipient is not receiving the maximum of $40.00, the Commission will authorize that the grant be increased to the maximum if the physician or institution providing the service meets requirements which the Commission may have established, and if such increase be necessary.

Reimbursement of Units Receiving State Relief Funds. Townships or commission counties which are receiving state funds may include all proper expenditures which they make in conformity with rules of the Commission for medical and hospital care of "non-paupers," including Old Age Pension Recipients, in the Estimates of Relief Requirements, Forms AR-87, which are submitted each month and state relief funds will be allocated accordingly. By this method units receiving state relief funds will be reimbursed for all expenditures *including expenses of the last illness of Old Age Pension recipients.*

Last Illness: Reimbursement of Units Not Receiving State Relief Funds. Townships and commission counties not receiving allocations of state relief funds are required by law to meet the medical and hospital expenses of "non-paupers," including Old Age Pension recipients.

By virtue of authority granted to the Commission in recent legislation, the Commission will make expenditures to reimburse townships and commission counties for expenditures made by such units for medical and hospital expenses

of the *last illness* of Old Age Pension recipients. (H. B. 656, amending Sec. 3 of the Old Age Pension Act, and H. B. 819).

"Last Illness" has been defined by the Commission for this purpose as the period of illness, not exceeding 60 days, immediately preceding and causing or contributing to the cause of the death of an Old Age Pension recipient.

Townships and commission counties, after having paid such costs as may be considered to have been incurred on account of the last illness of an Old Age Pension recipient, may obtain reimbursement from the Commission by completing and submitting Form AR-84 which will be supplied in the near future. Reimbursement will not be made for medical or hospital services or supplies rendered prior to July 15, 1943.

It should be emphasized that under this policy units receiving state funds will pay all medical and hospital costs of Old Age Pensioners beyond the cost which the pensioner himself can meet and will be reimbursed through usual allocations for all expense including the expense of the last illness. Units not receiving state funds will likewise meet all costs and will be reimbursed by the Commission for that portion of the cost which is chargeable to the last illness of the recipient.

Detailed instructions concerning procedure will be furnished in a forthcoming bulletin. This bulletin has no application to the City of Chicago or the Incorporated Town of Cicero.

RAYMOND M. HILLIARD
Public Aid Director

STATE VACANCIES TO BE FILLED

Vacancies in the Illinois State Department of Public Health will be filled from the eligible registers resulting from Civil Service examinations now on call for Bacteriologist, Laboratory Technicians and Serologists. January 14, 1944 is the last day for the receipt of applications in the Illinois Civil Service office, Room 501, Armory, Springfield.

Salary ranges for these positions are — Bacteriologist I, $150-$190 per month; Bacteriologist II, $180-$225 per month; Bacteriologist III, $180-$225 per month; Bacteriologist IV, $300-$375 per month; Laboratory Helper, $100-$125 per month; Laboratory Technician I, $110-$140 per month; Laboratory Technician II, $130-$170 per month; Serologist I, $150-$190 per month; Serologist II, $180-$225 per month. Applicants must be legal residents of Illinois.

Persons now accepting employment in the Illinois State Service have the advantage of a "career service" system, whereby persons with the minimum of training and experience can enter the beginning positions and through service ratings and promotional examinations can advance to top positions in the field. An additional inducement to attract qualified employees is the newly enacted pension plan offering retirement and disability benefits to all State employees.

The examination will be given at various centers throughout the State immediately after the closing date, January 14, 1944.

Application blanks position descriptions and qualifications required can be obtained by writing to the Illinois State Civil Service Commission, Room 501, Armory, Springfield.

1944 ANNUAL SESSION OF THE A. M. A. TO BE HELD IN CHICAGO JUNE 12-16

The annual session of the American Medical Association in 1944, which had been scheduled to be held in St. Louis, has been changed by the Board of Trustees of the Association so that it will now be held in Chicago June 12 to 16. The change, according to the announcement, was necessary because of information received that it would not be possible for St. Louis to provide adequate hotel accommodations.

The meetings of the House of Delegates of the Association will be held at the Palmer House and the Scientific Exhibit will be installed in that hotel. The Technical Exhibit will be housed at the Stevens Hotel.

Application blanks for space in the Scientific Exhibit are now available and may be obtained by communicating with the Director, Scientific Exhibit, American Medical Association, 535 N. Dearborn Street, Chicago 10, Illinois.

The fundamentals of tuberculosis control are changed by neither war nor peace. They always are: Find the sick — treat the patient — restore his earning power — prevent the spread of the disease — keep the family together.

Kendall Emerson, M.D.

Medical Economics

Edited by R. K. Packard, M.D., Chairman of the Committee on Medical Economics of the Illinois State Medical Society, 826 East 61st Street, Chicago, Illinois.

During the past three months it has been the writer's privilege to address five meetings on the subject of the Wagner-Murray-Dingell Bill. These groups were composed of Hospital Trustees, Superintendents, Hospital Staffs, Members of the Woman's Auxiliary, and some members of the lay public. Aside from these five meetings, I have had three rather informal discussions with members of Boards of which I am a member. Several questions have been asked. In four of the five official meetings this question was asked: "What has the American Medical Association to offer in place of the Wagner-Murray-Dingell Bill?" In three of the meetings this question was asked: "What is the American Medical Association doing to defeat the Bill?" In two of the meetings this question was asked: "Why did the American Medical Association oppose group hospitalization?" In one of the meetings this question was asked: "If the American Medical Association opposed group hospitalization and pre-payment medical plans and only yielded to them when public pressure was great — what right has the public to look to the American Medical Association for leadership in the distribution of medical care?" In one of the meetings this question was asked: "Why haven't the state and local societies approved the work of the National Physicians Committee when they have been active in opposing socialized medicine and are now active in opposing the Wagner-Murray-Dingell Bill:" Another question — "If the Wagner-Murray-Dingell Bill is defeated what changes would you personally like to see in medical practice?" Another — "What is the American Medical Association doing to correct the shortage of doctors in rural communities?" Another — "Group Hospitalization has not solved the problem of the low income group. What solution do you have for this problem?" Another — "Is it true that some of the high officials of the American Medical Association are in favor of the Wagner-Murray-Dingell Bill or some modification of it giving the government more control of medical practice?"

These are but some of the more important questions that one must be prepared to answer when he or she assumes the task of discussing the Wagner-Murray-Dingell Bill before professional or lay groups.

In answering question one: The American Medical Association has approved group hospitalization, pre-payment medical plans, cash indemnities for medical, surgical and obstetrical care, etc. For many years the American Medical Association devoted its time largely to medical education, research, standards of hospitals, post graduate education and specialty training. That the American Medical Association has performed exceedingly well in this no one denies — not even Paul De Kruif, Wagner, Murray or Dingell. The American Medical Association believes that the basis of good medical care must first, last and always be well trained doctors. No community can be safe in the hands of a poorly trained medical man, and no community can be safe in the hands of a doctor who does not possess a high standard of medical ethics. The American Medical Association has worked to that end, rather than to an extensive study of the distribution of medical care. That some failed to see that the rapid change in industrial progress and the rapid developments in medicine were creating new problems in medical care can hardly

be denied. The question can be asked; Was this a problem that the American Medical Association should have attacked or was it a problem for management? The early discussions were largely based on statements that the cost of medical care was too high.

For those whose income was insufficient to pay for medical and hospital care the medical men of America gave generously and willingly of their time to breach that gap and hospitals did all within their financial capacity to meet the problem. Management has never set a standard for a decent living wage. Henry Ford was the first to set a minimum and management as a whole did not take kindly to this evolutionary and revolutionary change.

The writer has often stated, and here reaffirms, that if the capitalistic system is to prevail management must give as much consideration to the total welfare of their employees as they do to both cash and stock dividends. The writer does not believe that the American Medical Association has a substitute for the Wagner-Murray-Dingell Bill. The chief function of the American Medical Association must remain one of sound medical education, post graduate, specialty training and research work. They should encourage group hospitalization, pre-payment medical plans under state and county medical societies and cash indemnities for surgical and obstetrical care. The American people believe in the principle of insurance against the hazards of health, death, fire, accidents, burglary, etc. There is no valid reason why we should oppose one and not the others. We do cling to the principle that they should be the result of free enterprise and cooperation, subject to the factors of competition to prevent excessive costs and free from the spoils of politics.

Question II: The American Medical Association is doing all within its power to defeat the bill. The American Medical Association is chartered as an educational and research institution, and it cannot use its funds in a campaign to influence public opinion in legislative matters. Its officers and special committees can and do appear before committees in Washington to present their views and reasons for sponsoring or opposing legislation.

Question III: Why did the American Medical Association and the profession as a whole oppose group hospitalization? The writer having been quite active in sponsoring group hospitalization for many years finds great difficulty in answering the question. However, it is a fact, and the public is aware of it as well as the profession. The only argument that was ever advanced, to the writer, was that it would lead to state medicine. Many physicians who personally believed in it would not endorse it until the American Medical Association had approved it. It remains a fact that we all now point with pride to the fact that fifteen million people have answered their hospital problem through group hospitalization. My only answer is that it was an honest lack of knowledge of a changing social economic order and conditions and a lack of vision as to the ultimate effect of these changing conditions.

Question IV: Wise men change their minds. The American Medical Association now approves group hospitalization, pre-payment plans, cash indemnities, etc., and are studying phases of cooperative planning for distribution of medical care. Leadership changes with the times, and a clearer understanding of the total factors.

Question V: The council of the Illinois State Medical Society at its last meeting approved the present activities of the National Physicians Committee.

Question VI: Personally I do not think there is any need for drastic changes. I would like to see the following:

1. Active support of group hospitalization by the profession and by industry, to the point that a major portion of the population is covered.
2. Cash indemnities for surgical cases for groups in certain income levels.
3. A more equitable charge for specialists services in certain income groups. Those who refuse to even see a case in consultation for less than $50.00 are not serving either the public or the profession well.

Question VII: The shortage of doctors in rural communities is largely a problem of the war. The American Medical Association has used whatever influence it had to move doctors, who because of disabilities, were not acceptable in the armed forces to rural communities and to

industry. The refugee doctors in this country have not, according to my information, cooperated in going to rural communities. They have elected to remain in the large cities.

Question VIII: Group hospitalization has not solved the problem of the low income group. This is a fact in most communities. How can it be solved? I think by industry. I think industry could pay half or all the fees for group hospitalization for those under a certain income level. In fact it would be a good investment. Government will force it if management does nothing about it.

Question IX: Washington is the center of the New Deal, the changing world, of a huge bureaucracy, of people fighting for positions socially, economically, politically, professionally and militarily. Those who frequent Washington are most inclined to ride in the boat. There are outstanding exceptions. We must admit that some doctors favor the Wagner-Murray-Dingell Bill. I do not believe that any official of the American Medical Association does. I do think that some have a feeling that something is going to happen in spite of what we do, and that we should help to formulate the plan and that some feel we really need a change to meet changing conditions, but that those changes should be guided by the profession in cooperation with the governing bodies. We can only judge by their official expressions.

R. K. Packard, M.D., Chairman
Committee on Medical Economics

STUDY SHOWS BRIGHTER OUTLOOK FOR VICTIMS OF ANGINA PECTORIS

Three Doctors Find Life Expectancy After Disease First Appears is About Twice as Long as Has Been Commonly Believed

The life expectancy after angina pectoris (breast pang) first appears is about twice as long as has been commonly believed, Paul D. White, M.D.; Edward F. Bland, M.D., East Liverpool, Ohio, report in *The Journal of the American Medical Association* for November 27. This statement is based on what is, so far as they know, the first study of this condition that involved a large series of cases followed over an adequate length of time.

The three physicians made a follow-up study in 1943 of 497 cases of angina pectoris that were first observed in the years from 1920 to 1930. Of the 497 patients, they say, "445 are dead and 52 are still living. The average duration to death of the 445 was 7.9 years, while the average duration from onset of the disease in the living is 18.4 years. The average duration to date for the combined dead and living is 9.0 years, which will ultimately increase when all the present survivors succumb, doubtless to a figure approximating ten years, a duration of life about double that at present widely regarded as the expectation of life after angina pectoris first appears (five years or less). Seventy-six per cent of the deaths were due to cardiac (heart) causes. . . . A pronounced degree of nervous sensibility was a favorable influence (in survival). Angina pectoris decubitus (an attack coming on while at rest in contrast with one during or immediately following effort) was found in 103 (20.6 per cent) of the 497 cases. There were no significant differences in the average duration of the disease to death or in the living between this group and that of the group as a whole. . . ."

The three men point out that it is not only helpful for the doctor to know something of the average life expectation in general in angina pectoris but also "for the patient himself and for his family, rather than to leave merely the impression that prediction is impossible and that the Sword of Damocles may fall at any moment. Such a state of affairs is for many persons so paralyzing that they are prone to sit for many years awaiting the end, unable to carry on a useful or happy life, or else, hardened by the thought, they may lead a reckless existence which can in truth hasten their end.

Since November 1, 1942, no resident of Winnipeg, Manitoba, has had to pay for tuberculosis treatment. In adopting this policy the City Council was influenced by the desirability of segregating all potential sources of infection, the fact that the cost of treating tuberculosis is ruinous to the average family and that financial pressure frequently interferes with the patients' chances of recovery. Another factor was the difficulty experienced in securing payment of hospital bills. Bulletin, Canadian Tuberculosis Association, March, 1943.

Medicine's Role in the War Effort

EARLY RECOGNITION AND TREATMENT OF NEUROPSYCHIATRIC CONDITIONS IN THE COMBAT ZONE

The War Department, Washington, D. C., recently released Circular Letter No. 176, regarding the early recognition and treatment of neuropsychiatric conditions in the combat zone, which is as follows:

1. *General.*—Any medical officer may be called on to treat neuropsychiatric casualties. Because of the shortage or neuro-psychiatrists, the burden of early recognition and treatment of these casualties will fall on medical officers without specialized training. The attention of all medical officers, therefore, is invited to their responsibility for the mental as well as physical health of military personnel.

2. *Incidence.*—According to present figures, from 10 to 20 per cent of casualties developing in combat are neuropsychiatric and, in certain engagements, as high as 30 per cent are of this type. It has been found that when these cases are properly recognized and treated at forward areas, up to 80 per cent can be returned sucessfully to combat duty; whereas, when improperly evaluated and unnecessarily evacuated to rear areas, only from 5 to 10 per cent can be returned to duty.

3. *Etiology—a.* Ordinary neuropsychiatric disorders are thought to occur only in weaklings or in individuals with personality defects. This is not true. Information at hand indicates that a significant proportion of the neuropsychiatric casualties are occuring in individuals who give no history suggesting predisposition. Under the extremes of stress and fatigue of modern combat, the most stable individual may reach his breaking point. Thus, the presence of neuropsychiatric disorder must be looked for in normal as well as predisposed individuals.

b. Factors which Precipitate psychiatric disorders are separation from home, regimentation, lack of freedom, lack of privacy, lack of feminine companionship, a feeling of not being appreciated and lack of confidence in leaders. In combat are added extreme fatigue, danger of death and mutilation, exposure to cold, heat, disease, isolation, confusion and hunger. The danger of being a coward, of losing self control, as well as responsibility for the lives of others, also plays a role. Insufficient understanding and conviction regarding the need to fight are also factors.

4. *Clinical Types and Diagnosis.—a.* Considerable confusion exists as the result of current use of diagnostic terms, such as "operational fatigue," "shell shock" and "war neurosis." There is no evidence that any new clinical entity has appeared in this war which would warrant the employment of these terms. It is directed that standard nomenclature for psychiatric disorders be utilized wherever possible.

b. In certain theaters it has been found that the term "psychoneurosis" produced in the patient's mind the idea of war causation and incurability and thus materially interfered with recovery. The term "exhaustion," on the other hand, implied to the patient nonspecific etiology, natural occurrence and speedy recovery. It was also in a measure true in that in the majority of cases this exhaustion was a strong contributory factor. If it is found expedient to use the term "exhaustion" as a preliminary diagnosis for combat neuropsychiatric casualities, the term should be employed only on the emergency medical tag (M. D. Form 52 b) and the case rediagnosed with the proper psychiatric term on the field medical record (M. D. Form 52 c). The use of the term "exhaustion" for psychoneurosis will be confined to cases developing under enemy action. Cases of exhaustion free from pschiatric components and essentially "physical" in nature will be qualified with an appropriate term in addition to the word "exhaustion" for purposes of differentiation.

c. Psychiatric casualties fall into the following main groups and should be so labeled:

(1) Psychoneuroses: These comprise the vast majority of neuropsychiatric casualties in the combat zone. They occur either in a normal or an emotional unstable individual. Underlying domestic difficulties frequently play a role. The types of psychoneuroses encountered are as follows:

(a) Anxiety. The anxiety type is the most common. The anxiety symtoms show pronounced variations in severity, but certain symptoms are common to all of

them. The most striking of these manifestations is the inappropriate reaction to any sudden sound, sudden movement or the sound of motors of any description. When these stimuli occur, the patient immediately concentrates all attention on the sound or, in more severe cases, may immediately run or seek cover of some sort and exhibit all the symptoms of a minor panic state. This reaction cannot be said to be abnormal qualitatively, since it is the normal reaction, to a lesser degree, of all men who have experienced combat conditions, but the quantitative response is clearly exaggerated. With this abnormal response there is usually a variable degree of mental confusion, tachycardia, tremors and, if severe, vasomotor reactions of the sympathetic type are evident. In addition, they manifest all of the anxiety reactions evident in civil life; namely, night terrors, insomnia, irritability, inability to concentrate, tremor and somatic symptoms of the visceral type.

(b) Hysteria. The hysterical reactions of paralysis, anesthesia, deafness, blindness and aphonia, so common in the last war, are notable for their rarity. Of the hysterical reactions seen, the rhythmic reflex tremors, repetitive dodging and avoiding movement, amnesias and stupor reactions are by far the most common. These manifestations are extremely dramatic in character and in general show a very poor response to therapy in that, when they are resolved, anxiety or other hysterical manifestations replace them or they recur under very minor stress. Some of these cases are distinguished from true psychotic reactions with great difficulty. They may show clear-cut hallucinatory reactions, thought block, retardation, decidedly childish behavior and little insight.

(c) Psychasthenia, neurasthenia and reactive depression are seldom seen and when seen do not respond rapidly.

(2) Psychoses: Psychoses rarely occur in normal individuals but may be precipitated in unstable individuals by stress of battle. The clinical pictures do not differ from those seen in the zone of interior. When the manifestations are bizarre and dramatic, or when hallucinations and delusions are present, detection is not difficult. Psychoses may also be manifested merely by overtalkativeness, overactivity, distractability, depression, apathy, indifference, carelessness in the care of clothes and eating habits or by undue suspiciousness or complexes on particular subjects, such as the government or religion. Psychoses also occur which appear to be full blown cases of schizophrenia but differ from the true disease by clearing up in a matter of days or weeks.

(3) Psychopathic Personality: Psychopathic personalities with homosexuality, emotional instability or a social and a moral trends are, of course, revealed but not caused by the stress of battle. Individuals with these personality defects are more likely to become psychiatric casualties than are "normal" individuals.

(4) Mental Deficiency: Limited intelligence also is revealed rather than caused by combat and may be mistaken for hysterical confusion or stupor.

(5) Organic Neurologic Disease: Concussion Due to Blast. An individual may be within a few feet of a bursting shell and suffer no organic damage, whereas another individual many yards from the same burst may be killed outright by the concussion. The individual who has suffered organic damage from blast almost invariably gives a history of clear loss of consciousness, having his breath knocked out, coughing up bloody sputum or bleeding from the ears and nose. On examination he may show fissuring of the skin, flash burn, perforated or hemorrhagic eardrums, conjunctival hemmorrhage, signs of intrathoracic or intra-adominal pathologic changes, focal or general signs of organic damage of the central nervous system.

5. *Malingering.* — A common error is to mistake psychoneurosis for malingering. It is difficult for many to accept the fact that malingering and psychoneurosis are distinct clinical entities. Treatment effective for one is utterly useless and even harmful for the other. Malingering is the conscious, deliberate exaggeration or pretense of an illness for the purpose of escaping duty. Psychoneurosis is an actual illness. By definition, a malingerer lies about his symptoms. A person with psychoneurosis either tells the truth or what he firmly believes is the truth. It may be true that neither wants to return to duty, but the malingerer is aware that he could go back if he chose, whereas a person with psychoneurosis either is actually unable to return to duty or sincerely believes so.

6. *Disposition.* — *a.* It is highly important to avoid indiscriminate evacuation. If a case can be treated adequately in forward areas, the prognosis is, as a rule, far better. On the other hand, delay in evacuating cases for which specialized treatment in a base area is necessary may prove disastrous to the patient and harmful to the efficiency and morale of the unit.

b. The criterion for selection of cases is the length of time which will be necessary to return a given case to effective duty. In general, the evacuation policy is to retain at the level of the evacuation hospital only those who require five days' treatment or less. All other cases must be treated in hospitals further removed from the front. In a general way, the accompanying table, based on actual field experience, may serve as a guide.

7. *Treatment.* — *a.* Treatment of neuropsychiatric cases developing in the combat zone is based on four cardinal principles:

(1) Early selection of cases which with treatment may be returned promptly to duty.

(2) Treatment of these cases in the combat zone.

(3) The rapid initiation of sedation in all cases.

(4) Recognition that psychiatric casualties are not malingerers needing punishment but sick men needing treatment.

b. Treatment in the Division Area: Battalion or regimental medical officers can return many mild cases to duty in a few hours by means of discussion, reassurances and short rest periods in the unit rest

area. Heavy sedation should be initiated when the patient is first seen. This heavy sedation acts to raise the stimulas threshold, decreases the anxiety reaction and decreases the abnormal suggestibility. The dose given must not be sufficiently high to convert a sitting case into a litter case. The sedation of choice is sodium amytal 6 to 9 grains (0.4 to 0.6 Gm.) orally or an equivalent dose of a similar rapidly acting sedative. Phenobarbital 4½ grains (o.3 Gm.) may be used, but the slowness of its action is a disadvantage in an acutely excited patient. Intravenous medication is to be avoided in forward areas because it converts a sitting into a litter patient and it is only rarely necessary. Morphine should not be used. If there is a delay in the collecting or clearing station (and the patient cannot immediately be returned to duty), further sedation is given to keep him in a drowsy state. Doses of sodium amytal up to 15 grains (1 Gm.) or phenobarbital up to 8 grains (0.5 Gm.) in twenty-four hours may be given with safety.

c. Treatment at the Evacuation Hospital: Immediately on arrival, a rapid examination of the patient is made in order to classify him either for further evacuation or criteria previously discussed or retention in the hospital for treatment. Those retained should be sent to a separate neuropsychiatric ward, allowed to wash, have the ward rules explained to them and a more exhaustive history and physical examination given. On the basis of this more complete examination, those men with profound disturbances

EVACUATION POLICY FOR PSYCHIATRIC CASES

Retain	Evacuate Immediately	Doubtful
1. All phychoneuroses of the anxiety type except the most severe	1. All psychoses	1. Moderately severe psychoneuroses of hysteria type
2. Mild psychoneuroses of the hysteria type	2. All organic neurologic disorders	2. Minimal concussion due to blast
	3. All psychiatric repeaters	3. Mild psychopaths of criminal and aggressive types
	4. Phychoneuroses with visceral somatic symptoms	4. Moderate mental defectives
	5. All severe mental defectives	5. Mild reactive depressions
	6. All severe psychoneuroses of the hysteria type (stupors, amnesias, reflex tremors and tics)	
	7. Severe psychoneuroses of the anxiety type	
	8. Severe and moderate reactive depressions and psychasthenias	
	9. Definite psychopathic personality	
	10. Most cases of concussion due to blast	
	11. Severe mental defectives	

are evacuated by the following day. Those remaining, whose prognosis seems good, are given explanations for their symptoms, strong reassurance and suggestions and are then sent to bed for two or three days. While in the ward they are given phenobarbital routinely and additional sodium amytal, if necessary, so that most of their time is spent sleeping. All patients are required to be up for each meal, which they get by standing in line with the up-patients, and to keep their own bed and immediate ward area in order. These steps are taken deliberately to maintain a sense of discipline and to discharge any idea of serious or physical illness. All therapeutic discussion is carried out in the open ward with the idea of repetitive mass treatment effect. Intravenous barbiturate catharsis and suggestions may be used in selected cases. Sedation is discontinued for a full day before discharge, and during this time the decision is made whether to return the patient for further duty or to evacuate him to the communication zone. This decision is based on numerous factors, but response to the direct questions "How do you feel now?" and "Do you want to return to your unit for duty?" are very often the deciding factors. There is no use in returning a man who boldly states that he is certain that he will have further trouble. Little attention is paid to new or minor symptoms, except to minimize them and give strong reassurance. No case should be kept in the evacuation hospital over five days.

For the Surgeon General:

ROBERT J. CARPENTER
Lieutenant Colonel, Medical Corps,
Executive Officer

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TOTAL PNEUMONECTOMY PERFORMED NEAR BATTLE FRONT

According to a recent announcement from the allied headquarters surgeons' office in Algiers, one of the most delicate operations ever done under field conditions was performed by a 5th army surgeon recently under a tented operating room and with a battle raging only a few miles away. The patient, a German soldier, was so badly wounded by shell fragments in the chest that one lung had to be taken out to save his life. Major Paul C. Samson, former assistant clinical professor of surgery at Stanford University School of Medicine, San Francisco, performed the operation. Dr. Samson graduated from the University of Michigan Medical School, Ann Arbor, in 1928 and entered the service May 10, 1941.

★ ★

PSYCHIATRISTS ASSIGNED TO UNITS

The War Department, Washington, D. C. appreciating the advance made in recognizing and treating symptoms calling for specialized handling by psychiatrists of personnel in the armed forces, is revising tables of organization to inclue a neuropsychiatrist, to be assigned automatically to every division. He will be a member of the division surgeon's office and will advise the division surgeon along the line of his specialty. He is to have the rank of captain or

major. During the training period of troops, the division psychiatrist will be expected to detect, treat and eliminate actual and potential neuropsychiatric cases. In addition, he will instruct all officers of the division in the recognition, prevention and treatment of mental casualties. In combat zones it will be his duty to sift and clear casualties of this type, with the object of returning to duty all personnel possible.

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PHYSICAL DISABILITY DISCHARGES OF THE ARMY

For the twenty month period ended July 31, 1943 discharges from the Army of the United States for physical disability totaled 208,296 men, according to an announcement made by the War Department recently. While more than half of these discharges were of a miscellaneous nature, the larger classifications in order were neuropsychiatric, heart disabilities, impairment of vision, tuberculosis and disabilities resulting from wounds. According to statistics from the Office of the Surgeon General, the percentage of disability discharges resulting from neuropsychiatric causes have increased within the twenty month period. Major Gen. Norman T. Kirk, Surgeon General, stated that "the Army has not granted disability discharges to any men who could be used effectively in the military prosecution of this war."

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MEDICAL CORPS OFFICERS NEEDED FOR SERVICE IN PARACHUTE UNITS

The War Department has announced, according to the *Army and Navy Journal* of October 2, that medical corps officers in company grades and not over 32 years of age are needed for service in parachute units. Volunteers on acceptance will be sent for training to the Parachute School, Fort Benning, Georgia. Physical standards are those prescribed in section V, War Department Circular 155 of 1942.

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EVACUATION HOSPITAL IN ITALY BLOWN DOWN DURING STORM

As a result of a heavy rain and wind storm which leveled every tent in a great field evacuation hospital with the Fifth Army in Italy within five minutes, 1,000 sick or wounded soldiers had to be transferred to a nearby tobacco warehouse, according to an item published in the Chicago *Tribune,* October 13. Lieut. Col. Phil A. Daly, of Chicago, who superintended the removal, is director of the hospital staff, most of whose members came from the Michael Reese Hospital, Chicago. Two hundred of the patients most seriously ill were moved to a big barn and hayloft across the field. All this was accomplished in less than two hours. Colonel Daly stated that "It was really a mess, with mud over everything. How we got them all out of there, I don't know. If we had planned this it would have taken two days. The storm was almost a tornado. It blew over an x-ray generator." Capt. Philip Marcus of Chicago, a member of the medical staff, said that one operation was finished under the operating table by flashlight after the tent blew down.

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PHYSICAL EFFICIENCY AMONG SOLDIER TRAINEES SHOWS IMPROVEMENT

The War Department, Washington, D. C., announced on October 2 an average improvement of 21 per cent in physical efficiency among soldier trainees in the first term of participation in the Army Specialized Training Program. Performances were recorded in seven events among 2,557 trainees at the twelve institutions in which the program had its inception, both at the start of the course and approximately three months later. Gains in various events ranged from 6 to 30 per cent. Trainees devote six hours weekly to physical training.

★ ★

FIRST WOMAN MEDICAL OFFICER TO BE GIVEN RANK OF LIEUTENANT COMMANDER

Lieut. Comdr. Catherine Louise McCorry, MC-V (S), (F), U. S. N. R., is the first woman medical officer to be given this rank since the Navy has accepted women doctors, according to the Bureau of Medicine and Surgery in its weekly release dated October 4. Lieutenant Commander McCorry graduated from Loyola University School of Medicine, Chicago, in 1930 and has been employed by the department of public health in Illinois as a psychiatrist and internist since completion of her training. It is expected that she will be ordered to active duty on or about October 25.

COMPLETE INSPECTION OF ALL NAVAL CONVALESCENT HOSPITALS

The *Army and Navy Journal* of September 25 states that Rear Admiral Luther Sheldon Jr. (MC), U.S.N., assistant chief of the Bureau of Medicine and Surgery, and Comdr. F. J. Braceland (MC), U.S.N.R., neuropsychiatry section, have completed an inspection of all naval convalescent hospitals in the western and southwestern parts of the country. As a result of this trip Admiral Sheldon is convinced that with some additional expansion the Medical Department of the Navy is in a position to handle any burden that may be thrown on it by reason of the war in the Pacific.

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Lieut. Col. Loyal Davis, consultant to the Army's chief surgeon, was in Chicago recently on a brief leave after a full year in the European theaters of war.

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GENERAL CLARK EULOGIZES WORK OF MEDICAL UNITS AT SALERNO

HEADQUARTERS FIFTH ARMY
Office of the Commanding General
A.P.O. No. 464, U. S. Army
In the field
25 September 1943

Major General Norman T. Kirk
Surgeon General, U. S. Army
Washington, D. C.

Dear General Kirk:

I desire to express the highest commendation for the wonderfully fine work performed by the medical units of this Army. Their devotion to duty under the hazardous and trying circumstances of the landing in Salerno Bay and their skill and efficient administration reflect the best traditions of the Service. Many wounded officers and men, who will eventually be restored to full health, would have died but for the effective work of the Medical Corps. I am especially well pleased with the performance of the Surgeon Fifth Army. He has done a magnificent job.

From the first landing to the date of this letter, 3,335 casualties have been admitted to Fifth Army hospitals. The first hospital opened within 3 to 5 miles of the front lines. The next hospital began to function the following day still closer and under the most difficult conditions. Neither hospital had any nurses when opened. Thus far there have been only 42 deaths in the hospitals. Thirty-two of these cases were those of U. S. personnel who died from wounds. Five were U. S. personnel who died from disease or injuries; 5 were enemy who died of wounds. Many of those who survived would never have reached a hospital alive had the hospitals been located at a normal distance from the front.

Two thousand and sixty-one cases have been evacuated to North Africa by air and sea.

The beach medical service was superior. One medical battalion distinguished itself on the beaches under heavy fire early in the operation. I shall recommend that the unit be cited for its gallant work under terrible conditions.

The medical supply system began to function according to plan with the assault wave, and despite the most difficult conditions it rapidly developed to the highest state of efficiency.

Among the difficulties with which the medical services have had to cope were the loss of the entire equipment of our third evacuation hospital and the bombing of a hospital ship which was bringing the nurses. Fortunately only one nurse was injured, and all are again on their way to Italy to rejoin their units.

The whole performance of the Fifth Army medical services has been most heartening to me and has been of incalculable aid in the operation. I have been so favorably impressed with their performance that I cannot forbear to write you this personal letter to tell you of my gratitude and admiration.

Mark W. Clark,
Lieutenant General, U. S. Army,
Commanding.

★ ★

HUGE HOSPITAL PLANE DEDICATED

The *Spirit of Norwood*, the Douglas Skymaster purchased with war bonds sold during the month of October in the Norwood Park area (Ill.), was dedicated on November 3 at the Douglas plant. The plane made its army acceptance flight on November 2 over the neighborhoods where the bond buyers reside. The hospital ship is equipped to carry 52 litter beds, 4 doctors and a crew of 6. The cost of the ship was $500,000, but the communities raised $766,880. Picture postcards of the ship will be sent

to the 1,200 men and women in service from the area to show them "we're doing what we can here at home." The drive included the communities of Edgewood, Rosedale and Higgins as well as Norwood Park, Ill.

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DISTINGUISHED SERVICE MEDAL TO GENERAL MAGEE

By direction of the President, a Distinguished Service Medal was awarded by the War Department to Major General James C. Magee, United States Army, "for exceptionally distinguished and meritorious service in a position of great responsibility as Surgeon General of the Army for four years terminating May 31, 1943." The citation states: "His far sighted and dynamic energy was greatly responsible for our soldiers being able thus far to emerge from battle with the lowest mortality rate among the wounded in our history. The Army has benefited greatly from his eagerness to avail himself of the most expert advice and data from the civilian medical profession in the fields of research against epidemics. General Magee foresaw and prevented a dangerous shortage of surgical instruments by pressing the development of domestic manufacture, resulting in an ample supply and improved quality of these vital materials. Under his guidance the Army's battle against the acquisition of venereal disease produced the lowest rate of infection in the Army's history."

★ ★

AVIATION MEDICAL EXAMINERS

Graduation exercises were held at the School of Aviation Medicine, Randolph Field, Texas, on October 7 following completion of the course for aviation medical examiners. The didactic portion of the course was conducted at the School of Aviation Medicine, Randolph Field, Texas, and the practical portion of the course at the three army air forces classification centers. The list of students from Illinois graduating:

Charles F. Alderson, Captain, East St. Louis.
Soddie J. Barkett, Captain, Cicero.
John B. Beare, Captain, Chester.
James W. Clark, Major, Chicago.
Howard D. Countryman, Major, Rockford.
Joseph A. Davis, 1st Lieut., Chicago.
Joseph C. Ehrlich, Captain, Chicago.
Edward A. Fahnestock, Captain, Bridgeport.
Harry L. Faulkner, Major, Chicago.
Roy L. Kenward, Captain, Melvin.
Philip J. Lopresti, 1st Lieut., Chicago.
Herman L. Mishkin, Captain, Chicago.
Jean H. Motier, 1st Lieut., Chicago.
Samuel C. Noto, 1st Lieut., Chicago.
Herbert P. Rasche, 1st Lieut., Maywood.
Keith Rhea, Major, Chicago
Morton Simons, Major, Chicago.
Guy L. Tourney, 1st Lieut., Quincy.
John W. Vertuno, Captain, Melrose Park.
Max I. Vinnecour, Captain, Chicago.
Hugh H. Worsley, 1st Lieut., Chicago.

★ ★

WOMEN PHYSICIANS NEEDED IN ARMY AND NAVY MEDICAL CORPS

A nationwide campaign will be opened on December 4 by the American Women's Medical Association to stimulate applications by women physicians for commissions in the Army and Navy Medical Corps, according to an item in the New York *Times*, October 5. The drive, which will be under the direction of Dr. Zoe Allison Johnston, Pittsburgh, national president of the association, will start its campaign at the annual meeting of the organization's executive board in Pittsburgh. The medical department of the Navy is reported to have openings in each of three ranks, lieutenant junior grade, lieutenant senior grade and lieutenant commander, and the major demand is for women laboratory physicians, psychiatrists and pathologists. Dr. Eva Carey, president of the Pittsburgh Women's Medical Society, stated that, "While there is no present surplus of women doctors, there is available a valuable supplement to the male contingent."

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SPECIAL HOSPITAL ESTABLISHED TO TREAT BURNS

According to a recent report from Algiers, Lieut. Col. Edward A. Krause, formerly of Washington, D. C., has been named head of the special hospital established to treat burns received on the battle field, under the Army's new "selective hospitalization" plan. Col. Edward D. Churchill, former professor of surgery at Harvard University, Boston, and now on duty in Algiers, said that the new system whereby soldiers with special types of injuries are sent to special hospitals, such as that headed by Lieutenant Colonel Krause, has had three large advantages: "Naturally the establishment of cen-

ters specifying the treatment of various types of casualties will render better service to the men wounded in battle. Second, these centers also will be educational centers where surgeons and specialists from other hospitals may observe technics. Then too, technical data to check on the results of surgical management and point the way to improved methods can be assembled."

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U. S. ARMY UTILIZING TALENTS OF CHICAGO NEGRO DOCTORS

Many prominent Negro physicians from Chicago are looking after the health and battle care of Negro troops in United States camps and overseas. Fort Huachuca, which is located on the side of a mountain between Bisbee and Nogales, Ariz., and which is said to be the principal Negro training center in the country in the sense of providing finishing work with combat troops, is the home of some 20,000 Negro soldiers. There the 92nd Division recently celebrated its first anniversary as an activated division. Lieut. Col. Median O. Bousfield, former member of the Chicago Board of Education, is in command of the station hospital at Fort Huachuca; Major Harold W. T. Latcher and Major Roscoe C. Giles, both of Chicago, are chief of the medical service and chief of the surgical division respectively. Many of the Negro nurses at Fort Huachuca are from Chicago, as are many of the girls in the WAC battalion there.

Maj. John B. West, former superintendent of Provident Hospital, Chicago, with thirty nurses, commands a station hospital in North Africa. En route overseas is another Negro station hospital staff under the command of Major Hugh Simmons of Washington, D. C., with which group Capt. Arthur Thomas, former resident surgeon at Provident Hospital, Chicago, is also attached. Another Chicagoan, Major Harvey J. Whitfield, directs the medical detachment with the 365th Engineers at Camp Campbell, Ky.

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THE SCHICK GENERAL HOSPITAL

The Schick General Hospital, which was formally opened on October 7, is located 3 miles north of Clinton, Iowa. The hospital has a capacity of 1,514 beds and consists of 103 separate structures. The ground consists of 89.6 acres of land enclosed by an 8 foot wire fence. There are a chapel, laundry, post exchange, post office, ambulance service, recreational facilities and air conditioned operating rooms. Prior to the formal opening of the hospital there were 2,687 patients admitted (Sept. 30, 1943), of whom 674 were operated on. The first patient was admitted on Feb. 15, 1943, and on the same day the first surgical operation was performed, on a soldier from this command. On the day of the formal opening there were 1,175 patients in the hospital, representing every overseas theater of operation. The allotment of nurses is 120 and of enlisted men 512. These men are being trained as operating room, x-ray and laboratory technicians as well as ward attendants. The staff of the Schick General Hospital trained the enlisted personnel of the Eighth General Hospital before it went overseas and is now training the Ninety-First General Hospital. Maj. Gen. Norman T. Kirk, the Surgeon General, has designated the Schick General Hospital as a Neurosurgical Center. The entire project represents an investment of more than $6,000,000.

The Schick General Hospital was named in honor of Lieut. William Rhinehart Schick, first army medical officer to be killed in action during the current war. Lieutenant Schick graduated from the University of Illinois College of Medicine in 1939 and was appointed a first lieutenant, medical corps reserve, April 28, 1941. He was killed when the bomber in which he was flying from the United States to Pearl Harbor was shot down during the raid on Pearl Harbor, Dec. 7, 1941.

When a state fails to provide sufficient beds it is committed to a plan that is wasteful, ineffective, and in the long run costly. Tuberculosis is curtailed but little, if at all, by treating only a small percentage of the patients and leaving many open cases in the community to sow the seed for another crop of victims who in their turn will be needing care. If we admit only the advanced cases to give them terminal care, we leave in the homes the hopeful cases until they in turn need terminal care. Halfway measures will not exterminate tuberculosis. A sanatorium bed should be available for every case of active tuberculosis regardless of the stage of the disease. Treatment that will benefit the patient and also serve to shield others by protecting them from infection is the real objective of case finding. The Modern Attack on T.B., Henry D. Chadwick, M.D. & Alton S. Pope, M.D.

Original Articles

AN EVALUATION OF ROENTGEN STUDIES IN HEART DISEASE IN CHILDREN

Sol P. Ditkowsky, M.D.
NORMAL
Edwin Rypins, M.D.
BLOOMINGTON

During the latter part of 1940 and the early part of 1941, hemolytic streptococcic infections of the throat were prevalent in McLean County. At the same time an increase in the occurrence of rheumatic fever was noted. At the Illinois Soldier's and Sailor's Children's School the two diseases occurred in epidemic form, 88 children developing acute rheumatic fever. History obtained in 50% of the children revealed that most of these patients had an acute exacerbation of an old process.

A cardiac survey was then made in which all of the children in the institution were examined clinically at which time an attempt was made to elicit pertinent facts in the past history. Each patient had a six-foot teleoroentgenogram of the chest, fluoroscopic studies, an electrocardiograph and a stethograph. In addition to the examination by the resident staff, each patient's findings were reviewed by a consulting staff consisting of an internist, two pediatricians, and a roentgenologist. The ages of the children examined ranged from three to nineteen.

In this study we have attempted to evaluate the significance of an abnormal cardiac contour in childhood and to evaluate the significance of deviation of the esophagus caused by an enlarged left auricle. All of the patients were classified according to the standards of the New York Heart Association.[1]

Changes in cardiac contour are said to be caused by an enlargement of one or more chambers of the heart. This in turn results from the combination of an inefficient myocardium plus a valvular lesion.[2] The earliest change which occurs with enlargement of the right ventricle is a prominence of the left border of the heart in the region of the pulmonary conus. This is seen with mitral stenosis and also in patients with mitral insufficiency associated with a rotation of the right ventricle. With a progressive enlargement, the upper and middle portions become more convex and become associated with some rotation so that the aortic knob becomes small or invisible. This mitral contour may be seen also with patent ductus arteriosus, interauricular septal defect, thyrotoxicosis, acquired disease of the pulmonary orifice or artery, and is said to exist physiologically to a lesser degree.[3]

Enlargement of the left ventricle is seen with mitral insufficiency and aortic disease. It may be recognized by an elongation of the lower segment of the left cardiac border as shown by an increase in the convexity or rounding of the radiologic apex which does not disappear on deep inspiration. (Figure 1)

Enlargement of the left auricle is said to be a pathognomonic feature of mitral heart disease.[4] This may be best demonstrated in the right anterior oblique position by barium studies which will show the degree of esophageal displacement or by a filling of the retro cardiac

From the Illinois Soldier's and Sailor's Children's School Hospital — Normal, Illinois

Read before the Section on Radiology at the Illinois State Medical Convention, Springfield, May 20, 1942.



Figure 1 — Cardiac contour illustrating left ventricular enlargement

space. This displacement may occur in any direction but is usually dorsally and to the right.

The normal esophagram shows an aortic arch impression with little or no deviation at the level of the left atrium varying somewhat with body build and inspiration. There is a tendency for a more vertical route with an increase in the straight verticle diameter of the chest. With left auricular enlargement the barium deviated abruptly to the right and dorsally below the aortic impression.

By placing an old washed x-ray film to the fluoroscopic screen, the course of the barium was traced. This tracing could then be recopied on ordinary white paper. By measuring the deviation of the barium from the vertical a normal curve was established.

Results of Study: — Of 532 children studied, 208 (39%) showed changes in contour and 31 (5%) revealed positive esophagrams.

The clinical study revealed that of the 208 children with cardiac changes, 78 showed mitral configuration, 108 showed left ventricular enlargement, 16 had enlargement of the pulmonary conus and 6 had globular configuration.

Of 78 children with mitral configuration, 25 had mitral stenosis clinically, 27 showed systolic murmurs clinically with a systolic and diastolic or stethograph, 21 showed murmurs of mitral insufficiency, 3 had a mixed aortic and mitral lesion, and 2 had no clinical findings.

Of 108 children, with left ventricular enlargement, 23 had systolic and diastolic murmurs at the apex, 5 had systolic murmurs clinically with a mitral diastolic murmur elicited only with stethographic studies, 68 had systolic murmurs apparently organic, 7 had mixed lesion of the aortic and mitral valves, 3 had murmurs apparently functional and 2 had no physical findings.

Sixteen children had configuration showing an enlargement of the pulmonary conus, of which three had systolic and diastolic murmurs at the apex and 13 had systolic murmurs at the apex, apparently organic. Six had globular shaped hearts with systolic murmurs over the precordium.

324 children had no cardiac contour abnormalities. 18 of these had systolic and diastolic murmurs at the apex, 12 had systolic murmurs clinically with a systolic and diastolic murmur on stethograph. 98 had murmurs that were probably organic, 62 had murmurs probably functional and 139 no abnormal findings.

Discussion: — Murmurs in children are said to occur in 50% of normal children. The differentiation between these murmurs and organic murmurs is often very difficult.

In addition it has been observed that the murmurs of rheumatic heart disease may be variable, being present at one examination and absent at another. The explanations usually given are that the changes in the valve may be too early to produce murmurs; or that because of enlargement of the heart the velocity of blood flow is reduced so that the murmur is inaudible.[5] However repeated observation has shown children with definite rheumatic heart disease observed through periods of acute exacerbation who during inactive periods had murmurs that were difficult to elicit or be entirely absent and where a repeat examination several days later showed very pronounced murmurs. In several of these children stethograms revealed the murmurs that could not be elicited clinically. T. D. Jones has called attention to the fact that murmurs are often seen to disappear in observing patients with rheumatic heart disease.[6]

Pronounced enlargement of the right ventricle was observed in other children who had basal systolic murmurs which would disappear upon change in position or respiration.

Case 1. M. J., a well developed and well nourished white female, age 12, was admitted to the institution on June 26, 1934 at which time a basal systolic murmur was elicited. Since then, no abnormal cardiac findings are recorded until 1940 when she was admitted to the hospital for an acute otitis media. At that time a systolic murmur was heard best at the base. A history was obtained of frequent leg aches. A roentgenogram (Figure 2) revealed enlargement of the right ventricle.



Figure 2 — Case I — M. J. age 12. Above cardiac contour shows a right ventricular enlargement in child



Figure 3 — Case II — C. H. age 12. Above cardiac contour shows a mitral configuration

In several instances the abnormal cardiac contour with left auricular enlargement was noted in children with no clinical findings. In most of the patients the typical murmurs of the mitral stenosis or insufficiency would be elicited if the patient were examined often.

Case 2. C. H., a well developed boy of twelve years, was admitted to the institution on September 7, 1934. Admission examination and routine periodic physical examinations did not reveal any cardiac abnormalities. On May 12, 1940, the patient was admitted to the hospital because of a fever, pain in the right chest, and abdominal pain. He was thought to have a pneumonia but roentgenograms revealed clear lung fields. However the cardiac shadow revealed a mitral configuration. (Figure 3) On April 2, 1942 the boy was admitted to the hospital because of polyarthritis and fever. A loud systolic murmur was elicited over the precordium and a stethogram revealed a double murmur. Clinically the diastolic murmur did not become apparent until several weeks later.

Several of the children who have had several exacerbations of rheumatic fever with progressive myocardial damage as shown by electrocardiographs failed to show cardiac contour abnormalities. The factor probably responsible for this is that these patients have had their physical activities markedly limited. On the other hand routine serial roentgenogram on other patients who apparently were progressing well showed progressive change in contour and size of the cardiac silhouette which would cease when the activities of the patients would be curtailed.

Case 3. J. M., white male age 9, was hospitalized in 1938 because of a persistent low grade fever associated with pallor and epistaxis. A loud systolic apical murmur was first noted during July 1940. Since then the patient has had several admissions because of pallor, low grade fever and epistaxis. A routine roentgenogram on December 10, 1941 showed normal cardiac configuration. On February 5, 1942 the patient was admitted because of a cough and fever. A roentgenogram at that time showed cardiac enlargement. A repeat film six days later after the infection had subsided; showed a return of the normal cardiac silhouette. (Figure 4) A sister, age 15, had several rheumatic episodes during 1940. She had a



Figure 4 — Case III — J. M. age 9 A. Routine chest film

past history of being in a cardiac convalescent home at the age of six.

Early in a primary attack of a carditis, roentgen changes are rare except in instances where the process is especially malignant.[3] Thus the roentgen ray studies affords an objective criteria in following the progression of a patient and in determining the length of time for convalescence.

Only 4 (2%) children of 198 with abnormal configuration had no physical findings. The others had evidence of organic heart disease. This would indicate the abnormal contour in childhood carries the same significance as in later life.

The value of the esophagram as an aid in diagnosing organic heart disease in childhood would seem to have limited value. If present it appears to be significant providing that the deviation is pronounced. Of 31 positive esophagrams 27 (87%) had organic heart disease on clinical examination.

Case 4. D. K., white male age 8, one of seven siblings, had been well until March 5, 1941 when he was admitted to the hospital because of shortness of breath. Since then he has had several attacks of carditis. On January 20, 1942, the patient developed a pharyngitis. Following this he had a daily temperature of 102° with an elevated pulse rate and sedimentation rate. He became short of breath and developed rales at the bases of the lung. On February 2, 1942, an esophagram showed left auricular enlargement while an anterior posterior view several days later showed



Figure 4 — Case III — J. M. age 9 B. Roentgenogram of heart showing enlargement following acute bronchitis



Figure 4 — Case III — J. M. age 9 C. Roentgenogram of heart showing decrease in size following bed rest



Figure 5 — Case IV — D. K. age 8. Anterior posterior view of chest shows mitral configuration of heart with enlargement and passive conjestion of lungs.



The barium filled esophagus shows a deviation dorsally indicating left auricular enlargement.

cardiac enlargement with passive congestion. (Figure 5) The patient responded to therapeutic measures and the carditis subsided. On March 13, 1941 a brother, age 13, died of rheumatic heart disease. A sister, age 14, has a mixed valvular lesion and has been hospitalized since August 1940. An older brother was recently rejected from the army because of a cardiac condition. Two other children in the family have systolic murmurs at the apex without cardiac enlargement and complain frequently of leg aches.

Left auricular enlargement is said to occur in every case of mitral disease and should in most instances correspond with the deviation of the esophagus, yet only 21 (8%) of 225 children with evidence of mitral disease showed a positive esophagram. Children with a pronounced enlargement in anterior posterior position often failed to have this change.

In some instances children with a markedly positive esophagram were observed to have a return to normal as their clinical condition improved.

SUMMARY

1. Abnormal cardiac contour denotes cardiac pathology although cardiac pathology may exist without such roentgen changes.

ROENTGEN CHANGES

Chart showing results of roentgen studies of the heart as correlated with clinical findings.

	Right Ventricle Enlarged	Left Ventricle Enlarged	Pulmonary Conus Enlarged	Globular Shape	No Change	Positive Esophagram	TOTAL
Physical Findings							
Systolic and Diastolic murmurs at the apex 25	23	3	0	18	15	69	
Systolic murmur at the apex but with stethogram a diastolic murmur also elicited ..27	5	0	0	12	0	44	
Systolic murmur at apex with cardiac enlargement 21	68	13	6	0	1	109	
Mitral and aortic disease ... 3	7	0	0	0	5	10	
Probable organic murmurs . 0	0	0	0	98	6	98	
Functional murmurs	3			62	2	65	
Normal 2	2			134	2	138	
TOTAL 78	108	16	6	324	31	532	

2. Progressive roentgen studies of the heart offers an objective criteria in evaluating the status of a convalescent patient.

3. Deviation of the esophagus cannot be demonstrated in many children who have evidence of mitral disease.

4. Roentgen examination is an important aid in the diagnosis of heart disease as the typical auscultatory findings may be absent or overlooked.

BIBLIOGRAPHY

1. Nomenclature and Criteria for Diagnosis of Disease of the Heart — New York Heart Association 1940.

2. Tausigg, Helen B. and Goldenberger, Marcel: Roentgenologic Studies of the Size of the Heart in Childhood. American Heart Journal Vol. 21 April 1941.

3. Roesler, Hugo: Clinical Roentgenology of the Cardiac Vascular System, Charles C. Thomas, Springfield, Ill. 1937.

4. Parkinson, John. Enlargement of the Heart (Lumleian Lecture) Lancet 1:1337 (June 13), 1391 (June 20) 1936.

5. Sosman, Merril C. Subclinical Mitral Disease, J.A.M.A. 115:1061-10-66.

6. Jones, T. D. Bland, E. F. and White, P. D. Disappearance of the Physical signs of Rheumatic Heart Disease. J.A.M.A. 107:569, 1936.

DISCUSSION

Dr. Edwin Rypins (Bloomington, Illinois): First I must publicly thank Dr. Ditkowsky for his excellent compliment.

I would like to express what to me is the most important part of this subject, namely, abnormal cardiac contour denotes pathology. Now, what does it denote? I believe Dr. Ditkowsky has shown in children that it probably denotes rheumatic fever.

Another point is that an abnormal contour may be present and yet there are no auditory findings. I stress that point because I have had the experience in reporting a rheumatic-fever patient on the basis of an abnormal contour and the referring physician doubting that very much, getting the patient back, exercising him, and still not hearing anything. Yet, three or four days, or perhaps even three or four weeks later, the patient would have a very obvious murmur, and the physician would call up to state that fact. Therefore, I would say, do not be discouraged when you make such a report and the referring physician states that he is not able to hear anything. If he sees the patient often enough, or if the patient gets an upper respiratory infection or some other strain on his circulatory system, the referring physician will hear something.

Another point that I feel is unusual, because you do not find it in the literature, or at least, I was unable to find it, is the lack of deviation of the esophagus in these patients who obviously have rheumatic fever and have an enlargement of the left auricle. The only explanation I have for that is that all of the previous work has been done on adults, and as these patients are followed, in perhaps the next eight, ten, or fifteen years, they, too, will show a positive esophagram, whereas at present it is entirely negative.

I feel Dr. Ditkowsky should be highly complimented for his excellent work in this line. He is a pediatrician, and being interested in rheumatic fever from that standpoint, from there he went on. He has done all of this work himself; I merely saw the films. He has fluoroscoped them all, and I am sure he has learned a great deal about it. (Applause)

Dr. Harry Olin (Chicago): Do you find, Doctor, that diameters help you? Of course, there is very little enlargement. It would be a good thing to know regarding the customary diameters, if these diameters would help us in denoting the unusual or rather abnormal enlargements of the chambers, say the left ventricle, the right ventricle, the bulge in the left auricle, the bulge in the right side of the heart, and so forth. They have helped me in the past, and while many men do not use them, I still cling to the use of these diameters. I think they are of great help.

Dr. Robert L. French (Oak Park, Illinois): I would like to ask a question. Have you found any pulmonary changes that are specific?

Dr. Harry Olin (Chicago): I would like to ask another question. I was not present during the first part of the paper, Doctor, but I assume routinely you go through the various lesions, and you bring out the various changes in contour of the right and left auricle and left ventricle?

Dr. Sol Ditkowsky, (Normal) (closing): I am not very familiar with the measurements. Dr. Rypins probably can answer that better than I can, but I can see where we can have a change in the contour, as in enlargement of the pulmonary conus region, without having an apparent increase in the size of the heart. I might say that the anterior posterior view of the enlargement may not always be apparent, and if we used Wilson's clearance of an angle to demonstrate the left ventrical hypertrophy, I think we would probably have greater incidence.

I would also like to bring out that some of these changes are not permanent; that as a child progresses favorably some of the signs might disappear and normal contour might result. We have had children with esophagrams who came back to normal after the clinical condition improved. I think no paper on the roentgen study of rheumatic fever would be complete without mentioning the calcification of the mitral valves. We did not find any in our study, although Sosman might have. Another factor would be that all of our patients were children, and it probably takes years to form these calcifications.

We have not found specific pulmonary changes. We had one child who had an acute rheumatic fever at the time of the epidemic who had pulmonary findings and also had a picture of an inflammatory lesion in the chest. Of course, we had no way of proving whether it was on a rheumatic basis or pneumonia, but the lung typing showed the type VI pneumonia.

Dr. Olin is correct in his assumption.

SYMPATHECTOMY IN THE TREATMENT OF PERIPHERAL VASCULAR DISEASES

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In 1928 a small, rather obese individual, 48 years old, was admitted to the old Wesley Hospital, complaining of pain on walking, numbness, and tingling of toes on both feet. There were marked color changes on assuming different postures. There was evidence of vasospasm. With the diagnosis of Buerger's disease, I did my first bilateral transperitoneal sympathectomy on this patient. On the fifth day he was seized with excruciating retrosternal pain, got out of bed, fell to the floor, eviscerated and died within a few minutes. Autopsy revealed a fresh thrombus in the coronary artery, an atheromatosis of the abdominal aorta and marked atheromatous plaques in both popliteal arteries.

In 1929, a thin emaciated Greek cook came to the surgical dispensary, with multiple ulcerations on his fingers, a hide-bound tight skin, thickening of the skin over the wrists, cheek bones and sternum. A diagnosis of diffuse scleroderma was made and a dorsal sympathectomy was done with a posterior approach. The pleura was hard and very thick. The chain was removed with difficulty. He received no benefit this operation and died four months later of uremia.

I mention these two patients since such early experiences well illustrate several don'ts in the surgery of the sympathetics. No surgeon should undertake these operations unless he is thoroughly familiar with the type of disease he is dealing with. The real advances in this field are to be expected from clinics, where men who understand vascular disease are performing sympathectomies in a carefully selected group of cases. The general surgeon, in close co-operation with an internist who is interested in cardiovascular disease, is best fitted for this job.

The history of sympathectomy for peripheral vascular disease is full of blind alleys and blunders. At first the adventitia of major arteries was stripped with the idea that it would increase circulation to an extremity with poor blood supply. Jaboulay in France did a periarterial sympathectomy for a perforating ulcer of the foot. Today, we know that only a very small part of the sympathetic fibers to the foot are severed by such an operation, and that the perforating ulcers of the foot are due to lack of sensory stimuli producing vasodilation and are not effected by sympathectomy.

Another concept, which was founded upon doubtful anatomical and physiological conjecture, was that brought forward by Hunter and Royle of Australia, who performed sympathetic ramisectomy for spastic states. This indication now has generally fallen into disrepute, but a very significant additional observation was the finding that the extremity deprived of its sympathetic supply showed vasodilation and was warmer than its fellow. With these observations began the treatment of peripheral circulatory disturbances by sympathectomy, until gradually a definite crystallization of its indications, technique and limitations has developed. It is my purpose in this presentation to give a brief summary of my experience in this field.

Since 1928 I have record of 195 sympathectomies performed for peripheral vascular disease. Of these there were 126 lumbar, 38 cervical and 31 dorsal sympathectomies. The technique of these operations has naturally undergone modifications since they were first started; so are the indications different. Because of these modifications, the present results are definitely superior to our early attempts.

Indications. — The purpose of sympathectomy is to free an extremity from the ever-present fluctuations of vasomotor tone. The extremity then is no more part of a heat-regulating mechanism and all the blood can serve the nutritional demands of the tissues. The extremity can be neither heated nor cooled by central or reflex stimuli. Its vessels are at comparative rest, only contracting directly on application of heat and cold.

One of the most important steps to take before a sympathectomy is contemplated is to determine how much of the diseased vascular bed is capable of dilating and how much of it is so permanently damaged that no vasodilation is possible. In my clinic we have used many methods to determine this; none are as reliable as the direct infiltration of the sympathetic chain with novocaine, followed by the determination of skin-temperature or an oscillometric

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curve. With these methods one measures the capacity of the peripheral vascular bed to dilate when its sympathetic supply is interrupted. It does not necessarily measure vasospasm, since a certain amount of vasomotor tone is always present.

For practical purposes a small, inexpensive skin-thermometer (mercury) is satisfactory. If the oscillometer is available, the increased oscillations following a block of the sympathetics may well demonstrate the increase in circulation.

In Table 1, I have listed the indications for sympathectomy in various types of peripheral vascular diseases. We have adhered to these principles ever since a vascular clinic was started at Northwestern University and later at the University of Illinois. The organization of such a clinic was described previously[1]. Since the proper

TABLE 1

INDICATIONS FOR SYMPATHECTOMY IN PERIPHERAL VASCULAR DISEASE

1928 - 1942

Diagnosis	Number of Patients	Number of Operations	Indications
Raynaud's Phenomena	15	35	Lack of marked structural damage to vessels. Absence of sclerodactylia.
Buerger's disease	51	126	Absence of acute phase. Good collateral reserve. Not over 50 years of age.
Poliomyelitis	9	9	Vasospastic, painful limbs, preferably between 6 and 10 years.
Causalgic States (Sudeck's atrophy) (Reflex dystrophy)	8	8	Good but fleeting response to sympathetic block. Spreading neuralgia.
Miscellaneous Group	17	17	Acute arterial emboli or thromboses. Arterial or arterio-venous aneurysm. Livedo reticularis. Hyperhydrosis.
	100	195	

selection of cases is one of the most important factors bringing about success, it might be well to discuss our method of selection in the individual diseases.

RAYNAUD'S DISEASE

It is not to be supposed that Raynaud's disease is very frequent. The beautiful study of Hunt[2], strongly recommended to those who are interested in Raynaud's phenomena, has sufficiently emphasized that many vascular diseases, inflammatory, toxic or degenerative, may produce triphasic color reactions, white-blue-red, which are so characteristic of this syndrome. Vasoconstrictor attacks may also be produced by lesions of the central nervous system in the brain, in the cord. Stimulation of the sympathetic fibers by a cervical rib, by a narrowed intervertebral foramen, by a scar on the neck, are possible. One arrives then at the diagnosis of Raynaud's disease by exclusion. Between attacks the fingers are entirely normal.

When attacks of digital vascular spasm recur daily, many times, brought on by exposure to cold or emotional stimuli, permanent damage will result to the vessel-wall and the structures of the digits. The musculature of the arteries hypertrophies, the intima thickens and thrombosis develops. Coincidentally, the skin becomes thin, the fat-pads of the digits disappear, a sclerosis of connective tissue appears and a state of sclerodactylia presents itself, which has nothing to do with scleroderma, but is often confused with it. Raynaud's disease is not a vasospastic lesion any more; organic lesions are now apparent. This is the second stage of Raynaud's disease. There is still a vasospastic element but the damage due to recurrent attacks is not reversible.

In a later third stage, small ulcerations or patches of gangrene appear. Infection may be superimposed. Venous thromboses in the smaller vessels complicate the picture. The pain is now continuous, excruciating. The vasospastic element is now negligible.

Sympathectomy is advocated in the first and second stages but not in the third. When the attacks are mild, infrequent and only occur in the winter-time, one might adopt watchful waiting. Outside of protection from cold and attempts at cold-training in slowly decreasing temperatures of water, no method has come to our attention which would alleviate or cure these attacks. Neither ovarian extracts, nor the known vasodilators such as the nitrites, the theobromine derivatives or papaverine have any affect. On careful examination of the fingers after reactive hyperemia, or after a block of the regional sympathetics, one often finds one or more fingers that will not warm up or flush at the same rate as the others. This is then the beginning of the second stage, and operation should now be urged. In the late, third stage with much arteriolar and venular destruction, sympathectomy is

useless. In fact, it is my impression that it may even accelerate gangrene. That sympathectomy may aggravate a circulatory disease instead of improving it is observed, not only in the late stage of Raynaud's disease but also in certain stages of Buerger's disease and in arteriosclerosis. The mechanism of this sudden deterioration of circulation following sympathectomy when the arteriolar bed is damaged will be discussed later.

Our results with sympathectomy in the treatment of true Raynaud's disease have been steadily improving. This is due to a better selection of cases and to a technique in whose evolution Smithwick has played a conspicuous part.[3] With this technique, recurrent sweating has not been observed. The tip of a finger may still show color-changes, but these are slight and severe burning at the end of the attack is absent. The finger which is so affected, has been the one which could not be completely warmed up before the operation; it harbors some structural damage and for this reason is sensitive to cold. This, of course, is no argument against the operation but is a good argument for doing it early.

BUERGER'S DISEASE

This disease of unknown, probably not uniform, etiology, of inflammatory nature with exacerbations and remissions, with vasospasm and organic occlusion may be successfully treated by sympathectomy but great care has to be taken to operate on only certain types of cases and in certain stages of the disease, otherwise failures and unnecessary operations will be numerous.

The primary lesion in Buerger's disease seems to be an abnormal reactivity of the vessel-wall so that segmental thrombi appear. The thrombi, with their vascular and chiefly their perivascular reactions are in turn responsible for a reflex vasospasm which further aggravates circulation. The purpose of sympathectomy in Buerger's disease is to inhibit this vasoconstrictor reflex, put the inflamed vessel-wall at rest and give it an opportunity to heal.

In the acute stage of Buerger's disease, patches of phlebitis or arteritis are present. The oxygen-saturation of the arterial blood is low.[4] The clotting factors in the blood are so increased that patients exhibit a resistance to the action of heparin.[5] Bed-rest, abstinence from tobacco, intermittent venous hyperemia and intravenous injections of sodium tetrathionate may bring about a remission. If the patients are young, if they have a collateral reserve of small vessels which are uninvolved, such a remission can be confidently expected. To do a sympathectomy in an acute stage of Buerger's disease would be analagous to doing an arthoplasty for an ankylosed joint which still harbors infection. The problem resolves itself then to an evaluation of the stage of the disease in which the patient presents himself.

Obvious attacks of phlebitis, red streaks around small arteries of the dorsum of the foot are suggestive of an acute stage of the disease. In the past, the sedimentation rate has been of some help. Recently, the determination of the heparin tolerance of such patients proved worth while.[5] The use of sodium tetrathionate, as proposed by Theis and Freeland,[4] improve the abnormal reaction to heprin. Such a course of treatment, lasting from four to six weeks restores the clotting mechanism of the patients. Surgery can now be undertaken at the optimal time.

Naturally, the extent of vascular damage is also important. In a patient whose major arteries are closed but whose terminal bed in intact, sympathetic block followed by sympathetcomy will result in marked improvement in color, temperature, in relief from pain and in the healing of ulcers. The prognosis of patients who suffer from a more peripheral arteriolar involvement is much worse. In fact, sympathectomy may aggravate some of these cases. The recognition of this arteriolar type of Buerger's disease is made possible by the effect of sympathetic block on the temperature of the toes. If there is no rise, *but a fall in temperature,* the prognosis is guarded. The fall in temperature after sympathetic block must mean that blood has been diverted through arteriovenous shunts to more proximal areas, leaving the terminal vascular bed with less blood than before. When such cases are recognized, it is wise to combine lumbar sympathectomy with amputation of one or several toes. Such toe amputations might be hazardous without the protective action of sympathectomy, but combined with sympathectomy they promptly relieve the patients complaints and restore his earning power.

Following sympathectomy, the patient must continue complete abstinence from tobacco and a scrupulous foot-hygiene. The disease may of course affect other extremities or may even flare up in the sympathectomized limb. In such instances, the activity of the disease has not been arrested and amputation may have to be resorted to. The incidence of major amputations in sympathectomized patients is very small, however, compared with those who have been treated with non-surgical measures.

POLIOMYELITIS WITH VESSEL-SPASM

The ideal patient suitable for sympathectomy is a child, younger than 8 years, with the paralysis limited mainly to one extremity. If these extremities are cold, plum-colored, painful, if nodular, erythematous patches, chilblains, or pressure sores are present, a sympathectomy will provide increased vascularity and greatly add to the comfort of the patient. There is, of course, no effect on the motor paralysis nor have I seen any acceleration of growth, as reported in the literature. In later life the poliomyelitic limb may still respond, but the chronic fibrosis due to persistent edema prohibits a marked improvement. It should be emphasized that only patients exhibiting vasospasm are suitable for sympathectomy; the majority of children do not show such manifestations. In our material only one-third seemed to show such involvement.

SUDECK'S ATROPHY. CAUSALGIC STATES

In recent communications,[6] a group of cases have been reported from our clinic which are characterized by a continuous burning pain, first localized, then spreading, associated with marked vasodilation. Such states follow mild injuries occurring around the wrist or ankle or peripherally to these joints. Only after four to six weeks does osteoporosis, muscle and skin atrophy develop. Later the neuralgia may spread to the root of the limb or even affect a symmetrical area on the opposite limb or may become intractable.

This syndrome then is essentially based on a chronic vasodilation. In the early stages repeated infiltrations of procaine to the sympathetic ganglia are very successful. Later a sympathectomy is necessary. In the stage of spreading neuralgia, which does not respond to sympathetic block, surgical methods including nervesection, posterior root section or chordotomy are of no avail.

It seem paradoxical that sympathetic paralysis, which brings about vasodilation, should be helpful in such patients. It seems, however, that it relieves the throbbing, burning pain of capillary hypertension of which these people are suffering and diverts the blood away from the capillary bed. It may also neutralize or destroy the pain-substance which is secreted at naked nerve-terminals. The nerve-fibers which are activated in this syndrome seem to be neither sensory somatic nor sympathetic fibers. Sir Thomas Lewis named them nocifensor.[7] They belong to the posterior root system.

MISCELLANEOUS GROUP

A group of patients have been assembled here, whose vascular impairment is either on a purely vasospastic basis or due to a vascular occlusion aggravated by collateral vessel-spasm. *Livedo reticularis*, sometimes called cutis marmorata, is a peculiar vasospastic disorder, terminating in indurations and ulcerations, which has responded favorably to sympathectomy. While it may occur on the upper extremity, in terminal stages of hypertension or in arsenical poisoning, it only becomes pathologically signficant on the lower extremities. The bluish pattern of the subpapillary venous plexus is exaggerated by cold, by dependent position and improved by heat or elevation.

Aneurysms of peripheral arteries may require a sympathectomy preliminary to their removal or obliteration. In arterial aneurysms which are treated by proximal ligation or by obliterative endo-aneurysmorrhaphy, a preliminary sympathectomy adds greatly to the safety of the procedure. Occasionally a spontaneous thrombosis of a subclavian or popliteal aneurysm may require a sympathetic block or a sympathectomy to tide the extremity over a critical period. In arteriovenous aneurysms there is ample collateral circulation to permit the quadruple ligation of artery and vein proximally and distally from the sack: however, even here since collaterals may have to be sacrificed during the operation, an added factor of safety is induced by preliminary sympathectomy.

Sudden arterial emboli or thrombi require immediate sympathetic block with procaine to relieve the concomitant vessel-spasm; if the extremity survives the initial ischemic insult, it may still remain cold, painful and useless. Such extremities, if the patient's general condition

permits, can be definitely helped by a sympathectomy.

Finally, diffuse, intractable hyperhydrosis should be mentioned as an indication for sympathectomy. This is, no doubt, of central origin and the patient will continue to sweat in the non-operated parts of the body. In fact, if all four extremities are subjected to sympathetic denervation, the sweating of the trunk may become intolerably excessive. However, I have seen excellent results from sympathectomy involving both upper extremities with dripping, clammy hands. Such patients become social outcasts and are unable to hold a job. On the other hand, excessive sweating of the feet may result in ringworm-infection, which is impossible to control, in painful excoriations of the skin, in a foul-smelling bromidrosis, all of which can be instantly controlled when the skin is dried up with a lumbar sympathectomy.

The technique of sympathectomies for peripheral vascular disease. Lumbar sympathectomy, at present, is done in two stages a week or ten days apart with a muscle splitting, anterolateral, extraperitoneal incision. The anesthesia is intratracheal ether or a spinal anaesthesia reaching to the sixth dorsal segment. The oblique abdominal muscles must be relaxed. The position of the patient is important. He is on his back with a slight elevation of the operated side and a flexion of the homolateral hip and knee to relax the psoas muscle. The ganglionated chain is removed from the level of the sacral promontory to the diaphragm. This may mean from two to four ganglia or one to several chains. While the removal of the first lumbar ganglia is said to paralyse the contractions of the seminal vesicles, Helfrich and I reported the case of a patient, in whom both lumbar chains and both splanchnic nerves were removed and yet a large number of motile spermatozoa were observed in a condom-specimen.[8]

An adequately performed lumbar sympathectomy results in a loss of sweating from toes to groin. When the first ganglion is missed the denervation is still satisfactory below the knee; there may be a strip of sweating along the distribution of the saphenous nerve, reaching to the foot. If a high lumbar sympathectomy is done which misses the second or third ganglion, the thigh may become warm and dry but the heel and the sole of the foot corresponding to the sciatic distribution remains cold and sweaty.

For the sympathetic denervation of the upper extremity, the preganglionic sympathectomy as described by Smithwick has been finally adopted.[3] I have done a number of dorsal sympathectomies from the back; then the anterior approach through the scalenus muscle was used. The stellate, second and third ganglia were resected and later a preganglionic type, leaving these ganglia intact but severing their connections with the spinal cord was used. Even so, regeneration of fibers occured after some months. The later procedure adopted consists of resecting two or three inches of the third rib paravertebrally,[9] together with the transverse process. The pleura is peeled away, and the second and third intercostal nerves are cut and followed into the intervertebral foramen. By gentle dissection it is possible to deliver the anterior and posterior roots, both of which are cut. The roots retract behind the dura and thus regeneration from this source is prevented. Next, the dorsal sympathetic chain is cut below the third ganglion; I place a Cushing-clip over its distal end whereas the proximal end is swung around and sutured to the muscles of the back. We have not found it necessary to wrap this end of the chain into a silk or cellophane cylinder as Smithwick suggested.

The mortality of these two operations is exceedingly low. Only one patient died after 195 sympathectomies; this was the first patient cited, who was operated on with a mistaken diagnosis and who should have had a preoperative electrocardiogram. There were two infections, one following a lumbar sympathectomy done with an all-silk technique; this patient had a draining sinus for many months. The other infection occurred after a dorsal sympathectomy; the patient developed an intrapleural hemorrhage and later a chronic empyema. He later needed a partial thoraplasty for his complete recovery. Since these operations were done by yearly rotating surgical residents, by some of the associates and by myself, the mortality and the morbidity of these operations seems low.

The results of sympathectomy. It has already been mentioned above, that the purpose of sympathectomy is to produce vasomotor palsy and not to remove any diseased organ. The evaluation of results must be analyzed from the stand-

point of the disease for which it is undertaken. In a previous survey,[9] I reported on 105 sympathectomies and the causes for their failures. This second survey shows a better percentage of good results since the indications have been more strictly drawn and the technique has improved.

In Raynaud's disease, the sympathectomy should (1) heal ulcerated fingertips, (2) eliminate the severe spasms of the fingers, (3) stop the painful burning at the end of the attack. Of these three postulates, the first and third are readily fulfilled. But even the technically perfect sympathectomy undertaken in an early stage of the disease may not completely eliminate color-changes of the finger-tips, which, however, are very fleeting and do not terminate in burning pain. The fingertips which show these changes are the same ones which do not warm up after a diagnostic sympathetic block; they have organic vascular damage and their reaction to cold is exaggerated. Since such residual spasms only occur on exposure to cold, since they are fleeting and do not produce progressive structural damage, they do not detract from the value of the operation. While the feet and toes of patients suffering from Raynaud's disease may be also affected, I have not found it necessary to do lumbar sympathectomies for this disease. The overwhelming majority affects women on the upper extremities.

In Buerger's disease, the evaluation of results is equally difficult. The disease must be arrested before it is surgically attacked. Sympathectomy simply facilitates collateral circulation by preventing central or reflex vasoconstriction. It will not open thrombosed vessels nor will the sympathectomized limb be free of future thrombosis; but it markedly improves circulation in the diseased extremity. The best indication of this is the rise in oxygen-saturation of venous blood, which Hick and I reported.[10]

The results of sympathectomy in poliomyelitic children have been most gratifying. The paralyzed limb loses it painful cyanotic indurations and remains warm and dry. There is also another type of pain encountered in these limbs which is accompanied by vasodilation. This pain may be abolished by repeated sympathetic block or by sympathectomy. In one such patient, repeated procaine injections given paravertebrally relieved a persistent burning pain, which had been present for years. The interpretation of this effect will be given below.

Sympathetic block or sympathectomy has a striking effect in causalgic states, on which I have reported elsewhere in detail.[6] Such patients exhibit a continuous burning pain with segmental areas of vasodilation, which at first follow the course of sensory nerves but later become diffuse. This syndrome occurs after mild injuries or infections around the ankle or wrist, fingers or toes, where there is an opportunity for stretch or contusion of somatic nerve-fibers. If such a state is recognized early, local infiltration of procaine to the injured area may be sufficient to abort the syndrome. In a later stage the neuralgia spreads preximally toward the root of the limb and a decalcification of the small bones of the hand or foot becomes evident. Repeated block of the sympathetics often brings relief but if the pain returns, no time should be lost in performing a sympathectomy. There is, however, a terminal stage in which sympathetic block seems unable to control the pain and sympathectomy done in this stage is equally useless. In such a stage, the pain seems to have become central in origin and no peripheral nerve-section can control it. Possibly section of mesencephalic tracts may be the answer.

It seems peculiar that causalgic states, which are quite frequent in a minor form and are again appearing in the present war, should respond to sympathetic block since these syndromes are characterized by vasodilation and measurably increased bloodflow. Nevertheless, a study of oscillometric curves reveals that, in spite of increased pulsations of the affected limb, there is an increase in peripheral resistance. Sympathetic paralysis then relieves this capillary barrage and shunts the blood back to the veins through the small arteriovenous shunts, thus decreasing capillary pressure. The vasodilation itself seems to be the result of a continuous stimulation of the posterior root fibers.

In the miscellaneous group our results with sympathectomy as a preliminary operation for aneurysms have been worth while. Thus in a femoral aneurysm of a young boy, the ligation of the femoral artery above the profunda was easily tolerated in the previously sympathectomized limb. Three upper extremities were denervated, whose subclavian aneurysms underwent spontaneous thrombosis. A number of acute thromboses

and emboli in upper and lower extremities have been saved by early sympathetic blocks; these were followed in the younger age-group by a sympathectomy. Obviously, there are limitations of the benefit expected, depending on the time elapsed since the occlusion, the extent of the secondary thrombosis propagating distally and proximally, the cardiac reserve and the repetition of emboli to other parts. But as a preventative measure against impending gangrene, at least the procaine block should always be tried since it may save a limb even when it is least expected to do so.

Lately, there have been some favorable reports on sympathectomies done in patients suffering with arteriosclerosis when they exhibit vasospastic phenomena.[12] I have never been impressed with this type of indication, unless it could be shown that the atheromatous process itself is modified in its progress. As Atlas has pointed out, such patients may occasionally show a rapidly developing gangrene of toes following sympathectomy, perhaps because of the opening of arteriovenous shunts with insufficient head-pressure behind them. There are, of course, a group of presenile arteriosclerotics whose walking ability and skin-temperature can be increased by sympathetic paralysis. It is my feeling at present, that such a group is more suitable for an alcohol-block of the sympathetics, which will bring about the same results for four to six months, but which can be readily repeated. In elderly individuals with sudden closure of the popliteal artery or of a popliteal aneurysm, an alcohol-block of the sympathetics has proved limb-saving.

SUMMARY

The value of sympathectomy in a variety of peripheral vascular disorders is definite. The operation insures an even bloodflow to the denervated extremity because its vessels do not respond to central or reflex stimuli and all the available blood can serve to nourish the tissues. Selected cases of Raynaud's disease, Buergers' disease, poliomyelitis with vasospasm, causalgic states, acute emboli and thromboses, aneurysms and hyperhydrosis have been subjected to sympathectomy. The technique of sympathectomies for the upper and lower extremities is now developed to a point where permanent sympathetic denervation can be expected. These operations should now be regarded as being past the experimental stage and should play an important part in the treatment of peripheral circulatory disturbances.

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BIBLIOGRAPHY

1. de Takats, G., Beck, Wm. C., and Roth, E.: The neurocirculatory clinic; a summary of its activities (1) Peripheral vascular disease. Ann. Int. Med. 13:957, 1939.
2. Hunt, J. H.: The Raynaud phenomena: a critical review. Quart. J. of Med. 5:399, 1936.
3. Smithwick, R. H.: The problem of producing complete and lasting sympathetic denervation of the upper extremity by preganglionic section. Ann. Surg. 112:1085, 1940.
4. Theis, F. V. and Freeland, M. R.: Smoking and thromboangiitis obliterans. Ann. Surg. 113:411, 1941.
5. de Takats, G.: Heparin-tolerance: A test of the clotting mechanism. Surg., Gyn., and Obstr. 77:31, 1943.
6. Miller, D. S. and de Takats, G.: Posttraumatic dystrophy of the extremities. Sudeck's atrophy. Surg., Gyn. and Obstr. 75:558, 1942. de Takats, G. and Miller, D. S.: Posttraumatic dystrophy of the extremities; a chronic vasodilator mechanism. Arch. Surg. 46:469, 1943.
7. Lewis, Thomas: The nocifensor nerves. Clin. Science 2: 373, 1936.
8. de Takats, G. and Helfrich, L. S.: Sterility of the Male after Sympathectomy. J.A.M.A. 117:20, 1941.
10. de Takats, G.: Sympathectomy for peripheral vascular disease. Arch. Int. Med. 60:990, 1937.
11. de Takats, G., Hick, F. K. and Coulter, J. S.: Intermittent venous hyperemia in the treatment of peripheral vascular disease. J.A.M.A. 108:1951, 1937.
12. Freeman, N. E. and Montgomery, H.: Lumbar sympathectomy in the treatment of intermittent clauduation. Am. Heart Journ. 23:229, 1942. Atlas, L. N.: Lumbar sympathectomy in the treatment of selected cases of peripheral arteriosclerotic disease. Am. Heart Journ. 22:75, 1941. (2) Gangrene following operation in improperly selected cases. Am. Heart J. 23:493, 1942.

STUDIES ON THE PATHOLOGICAL PHYSIOLOGY OF BURNS*

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Our interest in thermal trauma was aroused by the apparent lack of experimental work on the relation between burns and Curling's ulcer. With the advent of the war we have extended our work to various other phases of burns and, in collaboration with the Samuel Deutsch Serum Center have made observations on patients with

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burns. The following is a short review of our results. For extensive discussion of the literature the reader is referred to the extensive monograph by Harkins.[1] All our work on animals was performed without causing any pain or suffering to the subjects.

There seems to be a difference between the type of burns inflicted by various means, like burns by open flames, by scalding, or by chemicals. There seems to be also a species-difference in the response to burns. In the human for instance, following second degree burns by open flame, the skin usually is edematus and forms blisters. In the dog blisters are formed more rarely and the edema of the skin and of the underlying structures is less evident. Scalding of the limb of a dog usually produces the appearance of a leathery contracted structure, while in the human swelling and blisters are the usual consequence.

Changes in respiration during and following experimental burns in the dog were quite different from those occurring following experimental traumatic, hemorrhagic, surgical, anesthetic or drug shock. During the latter conditions, respiration usually becomes shallow, except for transient episodes of air hunger following hemorrhage, which usually disappeared, when profound shock has developed.[2]

During and following burns, thoracic respiration became deep and forceful and was associated with simultaneous strong respiratory movements of the auxiliary respiratory musculature of the head and neck and of the abdominal wall. In addition, a strong tonic contraction of the abdominal musculature raised intra-abdominal pressure considerably. This labored respiration might continue for many hours.[3]

One of the most studied aspects of burns has been the chemistry and composition of the blood. An outstanding change following burns is the loss of circulating blood plasma, which shows itself in hemoconcentration and diminished plasma volume. In the human, but not in the dog, large amounts of plasma may be lost from the burned surfaces by weeping, blister formation, etc. In burns, some of the greatest hemoconcentrations ever observed in any kind of shock have been recorded by various authors. We have confirmed this in animals. Other typical changes, as observed in shock from other causes, occurred also following burns, namely, slow circulation and acidosis[4]. The slowed circulation, however, was not as pronounced as we found it following traumatic or posthemorrhagic shock. This may have been due to the effects of the burns on blood pressure. Following a burn, blood pressure was not depressed in most animals, and even was elevated above the pre-burn control level in a great number of experiments.[5,6] The same has been reported for the human by Wilson and assoc.[7] Following a burn, an animal might live with a more or less normal blood pressure for prolonged periods of time, although acidosis, hemoconcentration and slowed circulation were present, indicating a grave condition. For this reason, blood pressure is a poor index of the clinical condition and of the prognosis of a burned individual. We have found blood pressures near normal or above normal in a number of animals up to a few minutes before death. Then a precipitate fall of blood pressure occurred and the animal died with what appeared to be a sudden cardiac death. Such death might be precipitated by the drawing of small samples of blood.

Another outstanding observation seen in burns was hemoglobinemia, the degree of which depended apparently on the extent of the burn. Free hemoglobin has been found to occur in humans as well as in animals. The causative factor is unknown. Whether red cells are destroyed directly by the heat of the burn, or by toxic factors, or whether part or all of the free hemoglobin in the plasma is muscle hemoglobin, is not known as yet. Following a burn, the free hemoglobin disappeared from the plasma rather rapidly. This initial hemolysis occurred during the burn itself or shortly thereafter, because we have never found an increase of free hemoglobin or increased cell fragility following burns. On the contrary, we have observed that the resistance to hemolysis of the dog's blood increased during the first week following a burn. This may have been due to the increased formation of young cells, more resistant to hemolysis. A considerable degree of secondary anemia began to become apparent several days after a burn. This we have observed in man as well as in the dog. This anemia was progressive and we have found it advisable to administer transfusions of whole blood to burned patients at this stage.[8] French authors believe that this secondary anemia is due

to the absorption of toxic products from the decaying burned tissues, which damage or destroy red blood cells.[9]

The above mentioned maintenance of a more or less normal, or even of an increased blood pressure following burns is a striking phenomenon, which has been observed in man, dog, cat and rabbit, and we have tried to analyze which factors may be responsible for it. For brevity, we will call it the vasopressor effect of burns.

Simultaneously with the above described change in respiration during and following burns, a stiffening and an increase of tonus of the muscles of the limbs was observed.[3] It thus was conceivable that the mechanism of the vasopressor effect of burns consisted in an increased venous return to the heart due to increased muscle tone. In order to answer this question, dogs were injected with curare until stimulation of the distal end of the sciatic nerve did not produce a muscle twitch, and the animal was scalded. A rise of bloodpressure occurred, although not as high as in most control experiments without curare. These experiments indicated that, while the factor of muscle tone played a certain role, it could not entirely explain the vasopressor effect of burns.

Denervation of a leg of an animal abolished the vasopressor effect of burns of that leg and often, a drop of bloodpressure occurred.[5,6,10] It thus became apparent that we were dealing with a nervous or reflex factor, and our next step was to analyze the nature of such a reflex.

The reflex nature of the vasopressor effect of burns was also indicated by the following experiment. Stimulation of the central end of the cut sciatic nerve produced a rise of bloodpressure in anesthetized dogs and in cats before and after burns. It was thus apparent that, if for a period of time following a burn, a great number of impulses would travel up the sciatic nerve from the burned leg, a rise or the maintenance of a more or less normal level of bloodpressure in the severely burned animal could be expected. Attempts to record action currents from the sciatic nerve following burns were unsuccessful for technical reasons.

A reflex vasoconstriction of the splanchnic area can produce a considerable rise of bloodpressure. Therefore, in dogs, both splanchnic nerves were cut. Subsequent scalding produced a considerable and typical rise of bloodpressure. This ruled out the factor of splanchnic vasoconstriction.

In bilaterally adrenalectomized cats and dogs the more or less typical vasopressor effect of burns was present, except that the curve was slightly modified. This showed, that the adrenal medulla did not play an important role.

In splenectomized dogs, scalding was followed by a distinct and maintained rise of bloodpressure. This ruled out the role of reflex or humoral contraction of the spleen as a factor in the vasopressor effect of burns.

Next, our attention turned to the pituitary gland, because it is known to be able to liberate pressor hormone following reflex stimulation.[11,12] A burn produced in a completely hypophysectomized dog was followed by a precipitous drop of bloodpressure, as usually seen following traumatization.[5,6] We did not feel justified however, to assume that this response was due to the absence of the pituitary gland per se, because capillary tone and reactions might be altered by the absence of pituitary pressor hormone to such a degree, that we would not be dealing any more with the same biological object. In order to employ animals with intact hypophses, we used a biological test for the detection of pituitary pressor hormone in the blood.[12] The intravenous injection of small amounts of acetylcholine into a normal anesthetized animal is followed by a typical, transient, drop of bloodpressure. Small intravenous doses of pituitary pressor hormone, abolish this response completely for some time. Following burns, the response to intravenous injections of acetylcholine disappeared, thus apparently indicating the presence of increased amounts of pituitary pressor hormone in the blood. However, certain characteristic features of the acetylcholine response following burns were quite different from those in normal assay animals. In the latter, following injection of the pressor hormone, the response to acetylcholine disappeared immediately and gradually returned to the normal control response. Following burns however, the reverse was true, the response to acetylcholine disappeared slowly and in no experiment did it return at all. This may be interpreted as showing that we were not dealing with pituitary pressor hormone as the cause of the vasopressor effect of burns. It is con-

ceivable, however, that our acetylcholine-pituitary pressor-hormone test may be modified by a burn, possibly by the extensive hemolysis, and that the pituitary pressor hormone may yet play a role. More experiments will be necessary to elucidate this point.

The presence of a considerable degree of hemolysis in the blood of burned animals was a constant finding. In order to test the effect of hemolysis per se on bloodpressure, normal blood was hemolyzed in vitro by various physical agents like heat, distilled water, shaking etc., and was injected into anesthetized normal assay animals. A small but distinct increase of bloodpressure occurred.

The response of the bloodpressure of an assay animal to partly hemolyzed blood from a burned animal was the same or somewhat greater than that to normal hemolyzed blood. The vasopressor effect of hemolyzed blood was increased, when the bloodpressure of the assay animal was depressed by constant injection of acetylcholine or of eserine. These experiments showed that the factor of hemolysis played a certain role in the elevation or maintenance of bloodpressure following burns, but it was not of sufficient intensity to explain the entire vasopressor effect of burns.

Following burns in the dog, partial to complete suppression of kidney excretion was observed in all experiments, the degree of suppression depending apparently on the severity of the burn. This observation drew our attention to the possibility that renin might play a role in the vasopressor effect of burns, i.e. that increased amounts of renin might be produced by an ischemic kidney. Therefore, burn experiments were performed on anesthetized bilaterally nephrectomized dogs. A more or less typical rise of bloodpressure occurred. These experiments eliminated the possibility of renin playing any important role in the vasopressor effect of acute burns.

Cessation of kidney secretion was observed by us to occur already during the burn; it occurred so rapidly that we felt that at least part of it might be due to a reflex. It was felt, however, that part of it was due to the large amounts of free hemoglobin in the blood following a burn. We have also observed cessation of kidney secretion following experimental crushing injuries. Both phenomena have been described in man, and are naturally of great practical interest. We have therefore, devoted much time to find ways and means to activate the kidney secretion after it had ceased following a burn. Preliminary experiments make us feel confident that we will be able to develop a suitable method for this purpose.

The occurrence of gastric and duodenal ulcers following burns (Curling's ulcer) has been reported.[1] In order to analyze the effects of thermal trauma on the gastro-intestinal system, numerous experiments were performed on burned animals. As controls, normal and traumatized animals were used. Our results, in short, were as follows.[2,3] Following traumatization there was little or no change in the stimulated salivary, pancreatic, biliary and gastric secretions. Following burns, we found a considerable depression of stimulated salivary, pancreatic and biliary secretions. In the case of gastric secretion no change was found, except when saline or saline-glucose solutions had been administered intravenously following the burn. In the latter case a considerable increase in volume and acidity of gastric secretion occurred and, in a number of animals distinct ulcers and erosions were found in the stomach or duodenum. Gastro-intestinal motility following traumatization was either absent or small. Only when bloodpressure fell to low levels and when considerable anoxemia developed, the motility usually seen with anoxemia occurred. Following burns, an entirely different picture was observed. Gastric motility was extremely strong, particularly in the pyloric part of the stomach, where strong tonic and tetanic contractions occurred; these were sometimes of such a degree that invagination of the pyloric antrum over the duodenum occurred. Duodenal motility was increased and, in a few experiments, the gallbladder was seen to contract. It is felt that the large increase of gastric and particularly of pyloric motility, together with an increase of gastric secretion and acidity may lead to ulcer. Another contributory factor for ulcer formation may be the considerable increase of intra-abdominal pressure which was measured by balloons inserted between liver and diaphragm. We feel, therefore, that ulcers or erosions may develop immediately following a burn, although they may not become clinically evident until later. The increased gastric motility was not abolished by

section of the vagus or of the splanchnic nerves or of both. Injection of medium amounts of atropin abolished this phenomenon entirely. We feel that this is of practical importance because vomiting and other gastro-intestinal symptoms following burns are considered to be of ominous nature. The cessation of gastric motility following injections of atropin was rather complete, and subsequent burns did not elicit renewed motility. We feel, therefore, that the administration of atropin to cases of burns exhibiting gastro-intestinal symptoms may be of interest.

The abolition of gastric motility following burns by medium doses of atropin drew our attention to the possibility of the factor of acetylcholine. Acetylcholine, the chemical transmitter of the nervous impulses of the parasympathetic system, is destroyed very rapidly after it has been formed and after is has acted as neural transmitter to end organs. It was conceivable that the enzyme which destroys acetylcholine in the blood and in the tissues, acetylcholine esterase, could be either destroyed or depressed by the burn. Therefore, determinations of esterase in the serum of burned animals were performed at various phases of the burn[6]. Our results, in short, were that no change of the acetylcholine esterase occurred following burns. The possibility remained, however, that increased amounts of acetylcholine might be liberated following burns. This was opposed however, to our observations on either increased or at least maintained levels of blood pressure following burns. Acetylcholine is known to be largely a vaso-depressor agent, and therefore experiments in this direction were not carried out.

We have attempted to survey briefly our work on the pathological physiology of burns. We have not been able to review all of our experiments nor the entire field in this short a time. We feel, however, that certain practical applications of our work may be useful at the present time. The first one is the observation that the level of the bloodpressure in burned persons is a bad index of the condition of shock in which a patient may be, and as a matter of fact, may be extremely misleading to the clinician. Other observations like the clinical impression, the pulse, the amount of free hemoglobin in the blood, hemoconcentration, or plasma CO_2 levels, seem to be much better indices of the clinical condition of the patient. The use of atropin in persons with gastro-intestinal upsets, like vomiting, following burns seems to be indicated. Our experimental evidence for this recommendation seems to be satisfactory. In a case of a burned child, in which we were able to pass a stomach tube shortly after the burn, we obtained evidence of pyloro-spasm and gastric retention[13].

Concerning the treatment of the dehydration and of the loss of plasma volume and of plasma proteins following burns, our group has made clinical observations on two cases with 45 to 50 percent burns of the entire body surface[8]. In order to overcome the profound shock it was necessary to administer during the first 20 hours following the burn, infusions of serum which amounted to more than the total estimated plasma volumes and total amounts of circulating proteins of these persons before the burn. Following this experience, a modification of Harkins' surface formula[1] was developed. We suggest, in the treatment of extensive burns in adults, the *immediate* administration of 50 cc of serum (or 60 cc of plasma) for every percent of body surface burned. In addition, 20 to 30 cc for every percent should be administred during the first 24 hours and another 20 to 30 cc during the next 48 hours. Total administration during the *first 72 hours* therefore, should be *at least 100 to 110 ccm* for each percent of body surface burned. Crystalloid fluid should not be given during the first 24 hours. Fluids and a high protein diet by mouth should be given as soon as possible.

REFERENCES

1. Harkins, H. N., The Treatment of Burns. Charles C. Thomas, 1942.
2. Necheles, H., and Wm. H. Olson. A. J. Physiol. 1942: 136, 32.
3. Necheles, H., and Wm. H. Olson. Surgery, 1942: 11, 751.
4. Olson, Wm. H., H. Gutmann, S. O. Levinson and H. Necheles. War Medicine, 1941: 1, 830.
5. Olson, Wm. H., and H. Necheles. Proc. Am. Physiol. Soc. March 1942: 1.
6. Olson, Wm. H., and H. Necheles. Am. J. Physiol. 1943: 139, 574.
7. Wilson, W. C., A. R. McGregor, and C. P. Stewart. Brit. J. Surg. 1938: 25, 826.
8. Pressman, D., Martha Janota, R. E. Weston, S. O. Levinson, and H. Necheles. J.A.M.A. 1943: 122, 924.
9. Lambret, O., and J. Driessens. Rev. de Chir. 1937: 75, 319.
10. Crile, G. W. An experimental and clinical research into certain problems relating to surgical operations. J. B. Lippincott Co. 1901, p. 97.
11. Chang, H. C., K. F. Chia, C. H. Hsue and R. K. S. Lim. Chin. J. Physiol. 1937: 12, 309.
12. Necheles, H., and F. Neuwelt. A. J. Physiol. 1938: 124, 142.

13. Necheles, H., and S. O. Levinson. Exceptional and clinical experience with serum and plasma in the treatment of shock. Chapter 35, In Blood Substitutes and Blood Transfusions, Charles C. Thomas, 1942.

THE NEW "ILLINOIS MENTAL HEALTH ACT"

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The new "Illinois Mental Health Act, an act to revise the law in relation to the commitment, admission, detention and care of mentally ill persons"* and "to provide for the licensing and regulation of private institutions for the care of mentally ill persons" will become effective on January 1, 1944. A knowledge of the provisions of this Act is essential to all physicians as well as to the psychiatrist, because at some time or another most physicians are instrumental in routing patients to mental hospitals. Following are excerpts from the new Mental Health Act with some interpretations. A few regulations that are being issued by the Illinois State Department of Public Welfare for the carrying out of the new Act are also mentioned.

"The words 'mentally ill person' are construed to mean any person who by reason of unsoundness of mind is incapable of managing and caring for his own estate or is dangerous to himself or others if permitted to go at large, or is in such condition of mind or body as to be a fit subject for care or treatment in a hospital for mentally ill persons; provided that no person whose mental development was arrested by disease or physical injury occuring prior to the age of puberty, and no person who is afflicted with simple epilepsy, shall be regarded as mentally ill unless he is mentally ill as above defined. Nothing in this Act shall be construed to apply to an insane person, or a person supposed to be insane, who is in custody on a criminal charge." The new law, therefore, excludes the feeble minded, epileptics and criminally insane. However, should there be super-imposed on the epilepsy or feeble-mindedness, a mental illness, the patient falls within the jurisdiction of this law.

*All quotations are taken from the "Illinois Mental Health Act."

The law provides for four methods of admission to mental hospitals, both to private and state maintained institutions. These four methods are:

1. On voluntary application
2. On consent by lack of protest
3. On court commitment
4. On temporary detention or emergency admission

By the procedure of voluntary application, "Any person of lawful age who may desire the benefit of treatment in a state or licensed private hospital or any institution for the care and treatment of the mentally ill, as a voluntary patient. may be admitted . . . on his own written application to the superintendent of the state or licensed private hospital." By this method the patient merely needs to apply to the mental hospital or institution to which he desires admission and fill out form No. 1 as prescribed by the Department of Public Welfare. In the case of a minor, Form No. 2 is filled out by his legal guardian. Both of these forms will be available at the individual hospitals. A person received at a mental hospital on voluntary application "shall have the right to leave at any time on giving ten days' notice to the Superintendent, and shall not be detained under such voluntary admission more than ten days from and inclusive of the date of notice in writing of his intention or desire to leave." "Upon admission to a hospital or institution for the mentally ill" on a voluntary application "the patient shall be informed, in simple non-technical language, of his rights of discharge as prescribed herein." The Superintendent is required to forward to the Department on form No. 1011, within ten days after admission of a voluntary patient, a record of such patient. Form No. 1011 is a statistical card.

The second type of admission is an innovation with this Act since there has heretofore been no comparable procedure. This type of admission is named "Admission on consent by lack of protest." "Any person with whom an alleged mentally ill person may reside or at whose home he may be, or the father or mother, husband or wife, brother or sister, or the child of any such person, or the nearest relative or friend available, or an officer or any well-recognized

charitable institution or agency or home, or any public welfare officer of the municipality or the Department of Public Welfare of the city or county in which any such person may be, may apply for admission of such person" by this method. This can be done if there is no demand for court action or protest against the procedure by the patient himself or by his relatives, friends or attorney. The method for admission on consent by lack of protest is as follows:

Any person mentioned above may file an application, known as Form No. 5, in which is contained "a statement of the facts upon which the allegation of mental illness is based, and because of which the application for treatment in a mental hospital is made." This form as well as the others needed can be secured at the offices of the county clerks throughout the state. The application must be accompanied by a physician's certificate, executed on Form No. 6. This must be dated not more than ten days before the date of admission. The certifying physician "shall not be a relative of the person applying for the admission or of the person alleged to be mentally ill, nor be a manager, trustee, superintendent, proprietor, officer, stockholder, nor have any pecuniary interest, directly or indirectly, nor be a resident physician in the institution to which it is proposed to admit such person, nor have any interest in the estate of the person to be admitted nor bear any relationship to him." The application and the physician's certificate will be examined by the county judge after reasonable notice has been given to the person alleged to be mentally ill and upon the nearest relative if such nearest relative has not filed the application or upon the person with whom the patient resided, or a friend. "The county judge shall (then) designate and appoint a competent, disinterested physician to examine and interview the patient. Such physician shall inform the patient in simple nontechnical language of his right to oppose and protest the procedure of confinement in the institution, and of his right to demand and obtain a trial before a court and before a jury." The patient's responses to such a statement must be embodied in this appointed physician's report as well as what the appointed physician said to the patient to bring forth such responses. This material will be presented to the County Judge on a certificate, Form No. 7, which will "embody the physician's conclusions concerning the mental illness of the patient and his need, if any, for care and treatment in an institution for the mentally ill." The judge will then, if he sees fit, approve these certificates and applications and the patient may be admitted to the mental hospital on presentation of these papers. This proceeding will not constitute an adjudication by the County Court, that the patient is mentally ill, thus avoiding a court commitment. Under this type of commitment, the patient retains the same rights as under voluntary type of admission, that is, he has the privilege of leaving after giving ten days notice to the superintendent, "nor shall any such person be detained whose mental condition becomes such that he cannot comprehend the nature of his commitment, or be able to request his discharge or give continuous assent to detention." Court commitment in this type of admission as well as in the voluntary admission can be resorted to if this is deemed advisable, should the above mentioned changes occur in the patient's mental condition. The Superintendent of the institution "shall discharge the patient if the medical examination in the institution indicates that the patient is at any time not a fit subject for care therein or if the patient has recovered from his mental illness." The report of such discharge shall be made to the Director of the Department of Public Welfare.

The new law contains specific directions for the court commitment of a mentally ill patient "upon an order made by a judge of the county court of the county in which he resides or in which he may otherwise be present." In this procedure, a notarized petition must be presented to the court and may be filed by any person listed as applicants for the admission on consent by lack of protest. Upon receiving these certificates and the petition, the court will notify the person alleged to be mentally ill and the nearest relative or friend if the nearest relative or friend has not filed a petition, that a hearing will be held to consider the case. Upon the demand of either the patient or another interested person, a trial by jury may be requested. Also, if the judge sees fit, he may appoint a commissioner to investigate the case for him. Under this procedure the court will enter an order adjudging the patient mentally ill and committing

him to the state mental hospital or to a private institution into the care and custody of relatives, with the relatives consent. The details involved in the Court Commitment need not be stated here, but are made explicit in the Act.

Under the fourth type of admission, temporary detention or emergency admission, a patient may be received in a mental hospital or in a municipal or county Institution, approved by the Director of the Department of Public Welfare, upon a "written statement and recommendation of any physician licensed to practice medicine in this state, provided that the said physician shall not be related by either blood or marriage to said person." This written statement and recommendation will be made on Form No. 13 and will need to be filed within ten days of its having been made. It "shall contain facts and circumstances upon which the recommendation is based and shall show, that the person is, in the physician's judgment, in immediate need of care in an institution for the mentally ill." Upon this physician's statement, "the person alleged to be mentally ill, may be temporarily detained for a period of time not exceeding fifteen days, pending a judicial investigation of his mental condition." Following the fifteen days, it will be necessary if continued detention is needed, to have the patient committed by one of the three other methods. The law provides that this method is to be used "when not to do so would endanger his own life or the life of others," and no other procedure is possible. Any place designated as either a permanent or temporary place for the reception, temporary care, or nursing for mentally ill patients, by the government body of any city, village, town, township or county, must be approved by the Department of Public Welfare. If there are no such approved placed in the vicinity, the state hospital will be used for temporary detention under this type of commitment. "A person temporarily detained under this section, shall not be received a second time on the basis of the same facts or on the certificate of the same physician."

In regard to the discharge of patients there have been several changes. The type of discharge known as parole under the old act, will now be known as conditional discharge and will be granted for a period not exceeding one year rather than the three months under the old regulations. This conditional discharge may be renewed. The law also provides for an absolute discharge which becomes effective when the Superintendent of a mental hospital files his certificate (Forms 15 or 15a) with the Department of Public Welfare.

In regard to private hospitals Section 21 of the law reads as follows: "No person, firm or partnership, association or corporation shall establish or maintain an institution, or special department within a general hospital, for the care, custody or treatment of mentally ill persons, for compensation or hire, without first obtaining a license therefor from the Department as herein provided." The departmental functions supervising the licensing and investigation of private institutions, has been delegated by the Department to the State Alienist at 912 South Wood Street, Chicago 12, Illinois.

There are various requirements and prescribed methods of application for licensing that may be obtained by writing to the State Alienist.

A section of the Act pertains to the restoration of rights which becomes a rather automatic procedure if the patient has a statement from the Superintendent of a mental hospital that he has been discharged as recovered or found to be without mental illness. In addition to this method, the Act provides for restoration of civil rights by adjudication by a county court. This involves a procedure similar to the Court Commitment. With the verified petition, there must be furnished certificates of two physicians, neither of whom shall be related to the patient by blood or marriage, in support of the petition for restoration of rights. This certificate is to be executed on Form No. 17.

The Act contains a section in regard to the transfer of patients which in effect protects the patient's interest and does away with the old methods of handling the patient in transit as if he were a criminal or felon. The Department encourages transportation of patients by their relatives. The Department of Public Welfare is given the authority to prescribe and publish rules and regulations relating to the general administration of the Act and to the transportation, custody, care, treatment and discharge of persons mentally ill.

The Act contains many devices which afford legal protection to the patient as well as those of persons or agencies caring for the mentally

ill and also to do away with some old ideas and stigmata attached to mental illness and crude methods of procedure which too closely simulated the procedures used in the treatment of felons, criminals, etc.

An attempt has been made to present excerpts from and interpret portions of the new Illinois Mental Health Act with emphasis placed upon the role of the practicing physician and psychiatrist in the admission and discharge of mentally ill patients. The forms have been designated although no effort has been made to fully explain or describe these forms since these will be readily available at the offices of the county clerks throughout the state. There has not been included in this presentation, matters relative to the keeping and placement of records, to some court procedures, to provisions for maintenance and treatment of veterans, to duties of the conservator or guardian, to letters by patients, to acquittal, to adaptation, to patients leaving hospitals without authorization, penalties, appeals, Habeas Corpus, and other similar matters. This is all contained within the Act itself, a copy of which can also be obtained from the county clerks.

The Department of Public Welfare will publish a manual for procedures under the Act which will be of interest to all persons concerned with the care and treatment of the mentally ill and will contain explanations for the uses of the many forms needed for the execution of the Illinois Mental Health Act. The manual will also be obtainable from the county clerk. Anyone desiring answers to questions arising in regard to this Act, may write directly to Dr. Conrad Sommer, Deputy Director, Department of Public Welfare, Mental Hygiene Service, 176 West Adams Street, Chicago, Illinois.

THE TREATMENT OF TETANUS

L. STERN

MOSCOW — U. S. S. R.

The failure of certain medicinal substances introduced into the general circulation as well as those formed in the organism as a result of the infection of the corresponding anti-toxins, may be explained by the presence of a hemato-encephalic barrage established by our year-long researches into the relations between the blood on one side and the spinal fluid and central nervous system (the cerebrum and the spinal cord) on the other. We have repeatedly voiced the thought that certain disturbances of the central nervous system remaining after an infection, as for instance, in lethargic encephalitis, were conditioned by a peculiar selectiveness of the haematoencephalitic barrage which in definite cases admits the pathogenetic agents but does not admit the respective anti-toxin toxins.

This may serve to explain the established fact that in tetanus the development of the pathological process itself may be averted by the action of a specific anti-tetanic serum, if the serum be injected during the incubation period, i.e. before the appearance of the first symptoms of tetanus, whereas, on the other hand, the injection of the serum in the majority of cases yields no medicinal effects in developed tetanus.

This gave rise to the thought that in cases of this kind it was indispensable, with a view to obtaining the desired effect, to abolish the obstacle (in the shape of the haematoencephalitic barrage), to the reaction of the substance in question on the nervous centres. With this end in view it is necessary to lower the resistance of the barrier to the passage of certain substances from the blood into the spinal cord.

Numerous investigations conducted to this end in the laboratories under our direction have shown it to be possible, by the action of a number of factors, physical, chemical, as well as biological, to increase the permeability of the hemato-encephalitic barrage in relation to a number of substances circulating in the blood, or introduced from without for therapeutic experimental purposes.

However, such a disturbance of the barrage may in a number of cases concurrently prove deleterious since, alongside of the requisite substances there may pass from the blood into the spinal cord certain substances which would be undesirable and harmful.

It would therefore in a number of cases be preferable to apply another method for the temporary removal of the obstacle in the shape of the barrage, namely that of directly introducing the medicinal substance into the spinal fluid, preferably into the ventricular spaces, i.e. the cavity of the brain ventricles.

In the clinic the suboccipital injection may be used for introducing the serum into the

spinal cord, on condition that certain rules be observed serving to hinder the reflux of the liquid into the subarachnoidal space (the operation requiring a definite direction of the needle and a definite pressure in injecting the liquid). The injection into the subdural or subarachnoidal space produces no effect because the substance introduced together with the liquid passes in the majority of cases into the blood without coming into contact with the nerve centres.

A series of experiments were conducted for the purpose of checking up these propositions (A. I. Yarmoshkevich). Tetanus was induced in animals (dogs) by that injection of the tetanic toxin following on which one group of dogs had anti-tetanic toxin injected in the usual way at different periods after the injection of the toxin, both before and after the appearance of the first symptoms of tetanus. Positive results were obtained in every case, when the serum was injected into the general circulation before the appearance of the tetanus symptoms, while on the injection of the same serum after the appearance of the symptoms, the animals perished. Another group of dogs had the anti-tetanic serum simultaneously injected into the spinal fluid as well, at different periods after the appearance of the first symptoms of tetanus.

The result of these experiments has shown that the injection of the anti-tetanic serum directly into the spinal cord interrupts the development of the process, the animal fully and speedily recovering. Such favorable results, however, are as a rule obtained only during the first twenty-four hours. A later application of this method of injecting the anti-tetanic serum frequently yielding less favorable results, although in the majority of cases the further progress of the pathologic progress is retarded. Complete recovery was not attained, the animals for the most part perishing, after a considerably more lengthy period.

Similar results were obtained in horses (N. G. Belenki).

These results have fully confirmed the proposition we have advanced. It is to be presumed that the absence of positive results from the injection of anti-tetanic serum in those cases when it was injected in later phases of tetanus, was most probably conditioned by the fact that the tetanus anti-toxin can only neutralise the toxin which has penetrated into the spinal liquid but cannot influence such lesions of the nervous elements as are produced by the action of the toxin. In other words the anti-toxin can avert the further effect of the toxin on the nervous centers proper, thereby suspending the further development of the process; if however the process has already to a certain extent developed and the lesions have assumed too great dimensions, positive effects from the injection of the anti-tetanic serum are hardly to be expected. These circumstances must be borne in mind in the attempts at the specific treatment of tetanus.

The results obtained in the laboratory in experimental tetanus have recently been confirmed in the clinic both in men and in horses. We were successful (E. S. Lockshin) by means of injecting anti-tetanic serum into the spinal cord by suboccipital injection, in saving a patient who had developed tetanus following on a wound. In this patient the tetanus was developing with unusual rapidity. At the moment of the injection of the serum the tetanus symptoms were strongly manifest. The patient had the serum injected into the blood and the spinal cord simultaneously. The further progress of tetanus was interrupted, the patient after a certain time recovering. Similar results were also obtained in a number of other cases where the same method was applied.

Several cases are described in the literature, where the anti-tetanic serum was injected directly into the spinal cord of a horse. The method has quite recently been successfully applied in a veterinary front-line hospital (N. G. Belenki) with horses afflicted with grave forms of tetanus. It proved possible by means of a suboccipital injection of anti-tetanic serum into the spinal cord to check the further progress of the process and fully to restore the animals to a normal state.

The confirmation by the clinic of the results received in experiment show that this method of direct action on the nerve centres is unsurpassed for the treatment of tetanus. The actual importance of the question and the interest presented by such a possibility of treating tetanus hardly require any further argument.

In every case where symptoms of tetanus are present the induction of the serum into the

spinal cord by suboccipital injection should be practised concurrently with the injection of the serum in the usual way, i.e. into the general circulation. Comparatively large quantities of the serum (from 10 to 20 cub. cent.) may be injected after a preliminary extraction of the requisite amount of spinal fluid. The operation may unreservedly be repeated several times if there is any fear of new quantities of the toxin penetrating from the blood into the spinal column. The concurrent induction of antitetanic serum into the blood is aimed at rendering innocuous the toxin circulating in the blood.

It is thus indispensable in the treatment of tetanus simultaneously with the induction of anti-tetanic serum by the usual method to apply the suboccipital puncture for injecting the serum directly into the spinal cord. In avoidance of enhanced intercranial pressure the spinal fluid has concurrently to be extracted to an amount corresponding to that of the serum injected (approximately from 15 to 20 cc.) In grave cases the injection of the anti-tetanic serum may be performed repeatedly.

TORSION OF THE SPERMATIC CORD WITH UNSUSPECTED TESTICULAR TUMOR

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Interest in the case reported here lies in the fact that in it, acute torsion of the spermatic cord attracted attention to the testicle which contained an unsuspected, symptomless malignant tumor.

Torsion of the spermatic cord is relatively common. The frequency with which this condition occurs would be more apparent if a correct diagnosis were made in all cases. Unfortunately many cases are diagnosed as acute epididymitis, orchitis, or strangulated hernia.

Torsion usually occurs in the spermatic cord in those cases in which the cord and testis have had an abnormal anatomic development in relation to the surrounding structures. A large tunica vaginalis attached high on the cord or abnormal attachment of the mesentery and vessels to the lower pole of the testicle may allow increased range of motion and permit torsion. Exercise and exertion are frequently the immediate cause, but many cases have been recorded in which the torsion occurred during rest or in sleep. In the case reported here the tumor was probably a factor in initiating the torsion.

Torsion occurs most commonly in the younger age groups; it is uncommon in infancy and rare in persons past middle life. In Scudder's [30] series of 32 cases, 75% were less than 24 years of age. Among 103 cases reviewed by Donovan,[11] only 13 were in children less than one year of age. In 1939 Kreutzman and Strauss[23] reviewed 450 cases taken from the literature and added one of their own. In 350 cases summarized by Abeshouse,[1] the condition was found to be bilateral in 24.

The onset of pain in the testicle is usually sudden; it is soon followed by swelling. Recurring attacks of pain in the testicle in a young boy without evidence of urethritis or urinary infection are frequently the result of torsion of the cord. Vomiting and a slight elevation of the temperature may or may not accompany the attack. The testicular mass is found high in the scrotum and the epididymis anterior or lateral to the testis rather than in the normal posteromedial position. The condition occurs with equal frequency on the right and left sides. Torsion may occur intravaginally or extravaginally. The tunica is filled with a more or less bloody fluid and the testis and epididymis are dark red to black in colour. The spermatic cord is thrombosed below the level of torsion and normal above. On section the testis has the appearance of a cut surface of liver.

Open operation affords the most satisfactory treatment in most cases. If the cord and the testis are found to be viable, it may be possible to untwist the cord and suture the cord and the testis to the scrotal wall so that torsion will not recur. If the testis and the cord are necrotic, orchidectomy is the treatment of choice. Some physicians prefer manual detorsion without opening the scrotum, but in most cases this is impossible and the time lost in making the attempt favors the onset of gangrene. In the recurring type of torsion, when the twist is not severe enough to cause necrosis and gangrene immediately, one may hope to preserve the testis. This is also true in acute cases if they are recognized as such and operation is performed immediately.

Tumors of the testicle have always interested the surgeon in spite of the fact that they are fairly uncommon, the incidence being one case in 1500 male hospital admissions.[22] Many cases have been reported in the literature and attempts at interpretation and classification of these neoplasms have led to active debate. In the classification of tumors of the testis there are those who maintain that, in addition to the obvious teratomatous group of tumors, a large proportion of tumors of the testis are purely homogeneous or single cell tumors derived from the cells of the spermatic tubules. Others[3, 4, 10, 14, 26, 28, 29] led by Ewing,[15, 16] maintain that practically all tumors of the testis are teratomatous in origin. Chevassu's[9] classification of testicular tumors, although formulated many years ago, appears to be the most useful. His classification included two main groups of testicular neoplasms, namely, the seminoma and the teratoma. These two groups form a characteristic histologic picture. In addition there is a group of adenocarcinomas of the testis in which no heterogeneous tissue is present to suggest a teratomatous origin and which definitely belong to the seminoma group.

Bell[4] in 1925 suggested that it is probable that these tumors represent teratoid tumors in which only one layer of the primitive blastodermic vesicle is present. In 1938 Leddy and Desjardines[25] demonstrated that seminomas were radiosensitive and teratomas radioresistant. In 1939 Cabot and Berkson[7, 8] showed that the prognosis in cases in which seminomas were present was better than those in which carcinomas were found. The histologic grading of testicular tumors, on the basis of 1 to 4, revealed in the work of Ferris [17] that all seminomas are graded 4, and all produce a homogeneous picture. On the other hand, teratoid tumors may contain carcinoma or sarcoma which may be of any of the four grades of malignancy. Teratomas portray a variegated histologic picture. To compare the prognosis of seminoma and teratoma of the testis on the basis of cellular differentiation alone, is impossible, as the two types of neoplasms are totally different.

The recent discovery that many of these tumors cause excretion of gonadotropic hormone in the urine similar to that found in the urine of pregnant women has aroused fresh interest in the subject. The interpretation of the various histologic pictures and the relationship of each of these to the presence of the gonadotropic hormone and the amount excreted in the urine is a phase of the subject receiving particular attention at the present time. However reports in the literature on this phase of the subject do not give adequate information for its clarification.

The hormone associated with tumors of the testis is a gonad stimulating hormone similar to, but not identical with, the anterior gonadotropic hormone.[21] Fluhmann and Hoffmann[18] have concluded that this gonadotropic hormone in the urine of patients who have tumors of the testis has the same properties as the hormone found in the urine of pregnant women.

The quantitative study of gonadotropic hormone in the urine in cases of testicular neoplasm can be of practical significance. The presence or absence of metastasis after removal of a testicular neoplasm could be judged by an excess of gonadotropic hormone in the urine. In cases in which an indeterminate testicular lesion was present, a neoplastic mass would be suggested rather than a non-neoplastic mass, in the presence of an excess of gonadotropic hormone in the urine.

From the clinical point of view, it is important to remember, as shown by Cabot and Berkson,[7, 8] that even in the presence of metastasis in association with testicular tumor, the ultimate outlook is not always hopeless. For that reason even though metastatic lesions are present when the patient is first examined, orchidectomy should usually be performed, and subsequently irradiation be employed extensively.

Although the effect of irradiation is less marked in the presence of teratoma in contrast with seminoma, it is helpful to employ this method when teratoma is present provided metastasis also exists. It was shown by Cabot and Berkson[24] that 50% of the patients who had seminoma without metastasis survived 10 years or more after operation, and surprisingly that 37.5% with metastasis at the time orchidectomy was performed survived for a similar length of time. The prognosis for all testicular tumors, other than seminoma, is somewhat less favorable the survival rate being 35% for 10 years after operation in the absence of metastasis and 10% for a similar period after operation in the presence of metastasis. These survival rates

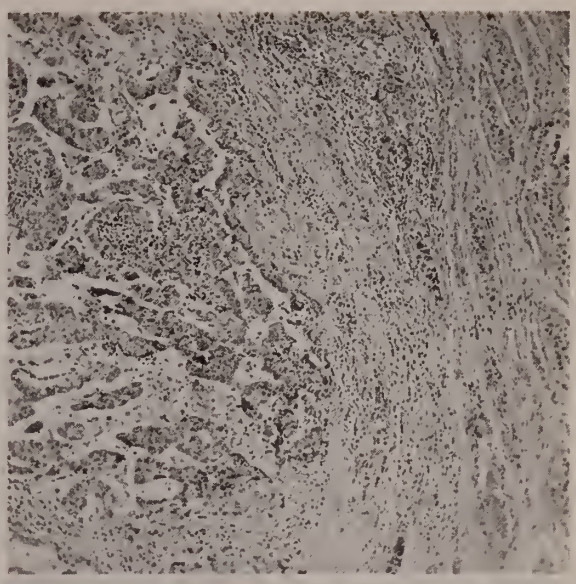
compare quite favorably with results obtained in the treatment of malignancy elsewhere in the body.

CONCLUSIONS

Tumor of the testis are rare and almost all of them are malignant. Two types of tumor, the seminoma and the teratoma, comprise almost all malignant tumors of the testis. All malignant tumors of the testis cause excretion of excessive amounts of gonadotropic hormone in the urine. Twenty rat units per liter of urine is the dividing point between normal and excessive amounts. The test must be quantitative and the best technic is that of Frank. The best routine on the first analysis is to test for 25, 40 and 66 rat units of hormone per liter of urine. The presence or absence of metastasis after removal of a testicular neoplasm could be determined by detecting an excess of gonadotropic hormone in the urine. In cases in which an indeterminate mass was present a non-neoplastic mass could be differentiated from a malignant neoplastic lesion by finding an increased amount of gonadotropic hormone in the urine.

It is advisable to remove the testis surgically in order to eradicate the primary neoplasm as well as to arrive at an accurate histopathologic diagnosis.

Following orchidectomy irradiation should be employed extensively even though metastatic lesions are present. Seminomas are radiosensitive; the effect of radiation less marked upon teratoma than upon seminoma; however, on the basis of survival rates it seems worthwhile to employ irradiation even when teratoma is present, provided metastasis exists.





REPORT OF A CASE

M. G., a male, 26 years of age stated that while he was sitting in an automobile he reached into the back seat for his hat and was immediately seized with a severe, excruciating pain in the right testicle. The patient had no previous history of testicular pain or swelling. He insisted emphatically that both testes were always similar in size, and that he had not observed any recent change in size before the onset of the present symptoms. There was no history of trauma or disease.

The pain was continuous and cramp-like and quite severe for the first 24 hours. Shortly after the onset of the pain the testicle felt swollen; it was about the size of a small orange the morning after the attack.

He consulted with a physician about 12 hours after the onset. The latter diagnosed the condition as an inflammation of the testicle, and advised bed rest, hot dressings and support for the testicles. Despite the treatment the pain continued and the testicle increased in size and in tenderness. This condition persisted for ten days. The temperature ranged between 99.2 F to 100 F daily from the beginning of the attack.

Examination of the testicle ten days after the onset of the attack revealed a swollen right testicle 7 x 8 cms. in size. It was exquisitely tender, firm on palpation and appeared to be under tension. No areas of fluctuation were noted. The testicle was opaque to transillumination. The spermatic cord was found to be swollen, thickened, firm and tender. The testicle appeared to be drawn toward the inguinal region. The lymph glands in the right inguinal region were shotty to palpation. There was no gross distortion of the normal anatomical pattern of these glands. The left

inguinal region was negative. The urethra, prostate and the seminal vesicles were normal.

Aspiration with a needle under local anesthesia yielded about 10cc. of dark clotted blood. A diagnosis of torsion of the testicle with hemorrhage, secondary infection, and necrosis was made.

Surgical exploration of the right testicle was performed Dec. 4, 1939, with the patient in the hospital under inhalation anesthesia. The surgical exploration revealed a swollen, inflamed spermatic cord with a testicle 7 x 5 — 5 x 4 cms. attached. The tunica albuginea was adherent to the tunica vaginalis in areas. The external layer of the testicle was for the most part smooth. On incising the tunica albuginia, dark clotted blood and necrotic debris escaped under pressure. Sections through the testicle revealed marked increase in size, and in its center friable, reddish and tan tissue was noted. Many cystlike spaces were noted.

The microscopic pathological report showed the specimen to consist of a testicle and epididymis incased in a tunica vaginalis to which spermatic cord is attached. The testicle measured 7 x 5 — 5 x 4 cms. The center of the testicle contains reddish tissue and tan tissue which is very friable and many cystlike spaces are noted. Microscopic diagnosis: rapidly growing, poorly differentiated adenocarcinoma, Grade 3, (Embryonal Carcinoma) with marked necrosis and hemorrhage into the tumor. Edema and fibrosis of the testicle with atrophy of the seminiferous tubules. Acute periorchitis, orchitis and epididymitis.

The x-ray examination of the chest was negative for metastases on admission to the hospital. A study for gonadotropic hormone was not made preoperatively as a tumor of the testicle was not suspected. The Friedman test was found to be negative for gonadotropic hormone in the urine six and twelve days postoperatively. The patient received a series of x-ray radiation treatments between Dec. 11, 1939 and Jan. 16, 1940 inclusive. The factors of the treatments were as follows: 800 K.V.; 10 Ma.; 1.0 mm. Pb., 1. 56 mm. Sn., 2.62 mm. Cu., 3.0 mm. Al.; 70 cm. F.S.D.; Field sizes 20 cm. x 20 cm.; 2500 r. units in 10 fractions to ant. right pelvis and right scrotum and 2500 r. units in 10 fractions to posterior right pelvis and right scrotum.

This patient is in good condition and working regularly at the present time. Three Friedman tests and three x-ray films of the chest at 3 month intervals have been negative. There is no clinical evidence of metastasis at the present time.

BIBLIOGRAPHY

1. Abeshouse, B. S. Torsion of the spermatic cord; report of three cases and review of the literature. Urol. & Cutan. Rev., 1936, xl, 699, Oct.
2. Allen, P. D. & Andrews, T. H. Torsion of the spermatic cord in infancy. Am. J. Dis. Child., 1940, lix, 136-142, Jan.
3. Bang, F., Hamburger, C., & Nielsen, J. Essai de classification des tumeurs du testicule base sur des recherches histologiques, normonales et cliniques-radiologiques: 28 cases. Bull. Assoc. franc. p. l'etude du cancer, 1935, xxiv, 418-466, June.
4. Bell, F. G. Tumours of the testicles; the spermatocytoma group. Brit. Surg., 1925, xiii, 282-301, Oct.
5. Broders, A. C. The grading of carcinoma. Minnesota Med., 1925, viii, 726-730, Dec.
6. Cabot, H. Modern Urology. Philadelphia: Lea and Febiger, 1936, vol. I, p. 429.
7. Cabot, H. & Berkson, J. Neoplasms of the testis: a study of the results of orchidectomy, with and without irradiation. New England J. Med., 1939, ccxx, 192-195, Feb. 2; Abstr. in Proc. Staff Meet. Mayo Clinic, 1939, xiv, 333-336, May 24.
8. Cabot, H. & Berkson, J. The outlook for patients with malignant tumors of the testis associated with massive metastasis. Proc. Staff Meet. Mayo Clinic, 1939, xiv, 377-380, June 14.
9. Chevassu, Maurice. Tumeurs du Testicule. Thesis, Paris, No. 193, 1906, 239 pp.
10. Deitermann, J. H. Zur Kenntnis des Seminoms, seines wesens und seines Krankheitsverlaufs. Frankfurt. Ztschr. f. Path., 1937, 1, 231-251.
11. Donovan, E. J. Torsion of the spermatic cord in infancy. Ann. Surg., 1930, xcii, 405-409, Sept.
12. Drips, D. G. Prolan determinations in gynecology. M. Woman's J., 1940, xlvii, 163-166, June.
13. Drips, D. G. & Osterberg, A. E. An evaluation of the Frank method for the determination of prolan (gonadotropic principle) in the urine of non-pregnant women. Endocrinology, 1938, xxiii, 703-710, Dec.
14. Eisendrath, D. N. & Rolnick, H. C. Text-Book of Urology. Philadelphia: J. B. Lippincott Co., 1928, 942 pp.
15. Ewing, James. Teratoma testis and its derivatives. Surg., Gynec. & Obst., 1911, xii, 230-261, March.
16. Ewing, James. Neoplastic Diseases, Ed. 3. Philadelphia: W. B. Saunders Co., 1928, pp. 839-842.
17. Ferris, D. O. Pathology of tumors of the testis: correlation with excretion of hormone in the urine. Proc. Staff Meet. Mayo Clinic, 1941, xvi, 615-621, Sept. 24.
18. Fluhmann, C. F. & Hoffmann, P. E. Gonad-stimulating hormone in urine of a patient with teratoma testis. Proc. Soc. Exp. Biol. & Med., 1934, xxxi, 1013-1014, May.
19. Frank, R. T., Salmon, U. J. & Friedman, R. Determination of luteinizing and follicle-stimulating principles in castrate and menopause urine. Proc. Soc. Exper. Biol. & Med., 1935, xxxii, 1666-1667, June.
20. Friedman, M. H. Mechanism of ovulation in the rabbit. Ovulation produced by the injection of urine from pregnant women. Am. J. Physiol., 1929, lxc, 617-622, Nov.
21. Hinman, Frank & Powell, T. O. The gonadotropic hormone in urine of men with tumor of the testis. J. Urol., 1935, xxxiv, 55-71, July.
22. Hinman, Frank. The principles and practice of urology. Philadelphia: W. B. Saunders Company, 1935, 762-784.
23. Howell, L. P. Excretion of gonadotropic principle in thyroid disease. Tr. Am. A. Study Goitre, 1940, pp. 157-159.
24. Lauder, M. S. Torsion of the testicle; with report of a case. Canad. M. A. J., 1939, xli, 140-142, Aug.
25. Leddy, E. T. & Desjardins, A. U. Radiotherapy for tumors of the testis. Radiology, 1938, xxxi, 293-298, Sept.
26. McDonald, J. R. & Broders, A. C. Seminoma and teratoma in the same testis; report of a case. Am. J. Clin. Path., 1941, ii, 138-143, Feb.
27. Ormond, J. K. Torsion of the testicle. J. A. M. A., 1938, cxi, 1910-1914, Nov. 19.
28. Schultz, O. T. & Eisendrath, D. N. The histogenesis of malignant tumors of the testicle. Arch. Surg., 1921, ii, 493-520, May.
29. Schlotthauer, C. F., McDonald, J. R. & Bollman, J. L. Testicular tumors in dogs. J. Urol., 1938, xl, 539-550, Oct.
30. Scudder, C. L. Strangulation of the testis by torsion of the cord. Ann. Surg., 1901, xxxiv, 234-248.
31. Twombly, A. H., Temple, H. M. & Dean, A. L. Clinical value of the Aschheim-Zondek test in the diagnosis if testicular tumors. J. A. M. A., 1942, cxviii, 106-110, Jan. 10.

32. Zondek. Die Schwangerschaftsdiagnose aus dem Harn durch nachweis des Hypophysenvorderlappenhormons; Gründlagen und Technik der Methode. Klin. Wchnschr., 1928, vii, 1404-1411, July 22.

33. Zondek, Bernhard. Maligne Hodentumoren und Hypophysenvorderlappenhormone. Klin. Wchnschr., 1932, ii, 274-279, Feb. 13.

ONE-SIDED SPINAL ANESTHESIA

David L. Murphy, M. D.
DIXON

It was my good fortune to hear Dr. Frank Lahey extol the virtues of this glucose fixed spinal anesthetic here in Chicago some four or five years ago, and later to see it used at the Lahey Clinic. So sold on it were we, that we tried it and found it very satisfactory indeed.

In extremity work, we observed that if the patient was kept on his side for several minutes that the fixation was almost one-sided. This observation was precipitated by a patient who had fractures of both patellas. The puncture was done on the right side. Glucose fixed spinal was used. The right patella was done first, easily and satisfactorily. Then the left patella was attempted, but could not be done because of no anesthesia on this side. The patient volunteered that the left side never went out, so he had to be anesthetized with gas to complete the left side. After he was awake and returned to bed, the right side was still anesthetized.

Exploiting this observation, we used the following technique for unilateral extremity surgery.

Patient is turned on injured side, his head is elevated on two pillows. The site is injected with a wheal of 1. cc of ephedrine and Procaine. The subarachnoid space is punctured between the 4th and 5th lumbar with a 22 gage needle and a free flow spinal fluid obtained, then, 1. cc of 1 percent solution of Pontocaine (10 mg.) which has been mixed with 3. cc of 10 percent Dextrose, is injected slowly in about 30 to 45 seconds. After removal of needle, hold patient in this position for 5 minutes by the clock, then turn him on his back to the operating position, still keeping his head on pillows. There will be little blood pressure change. The small dose of ephedrine keeps it at about a preoperative level. Motor fixation is usually absent on the uninjured extremity, though, there are some anesthetic paresthesias in this leg. This method has been very satisfactory in elderly patients who have had surgery for trochanters and necks of femurs.

Several months ago, we had the misfortune of having to remove and reinsert some pins in a fractured femur neck. The interval between returning the patient to the operating room was 3 hours and the original glucosed fixed spinal was still workable.

If procaine is used, then about 1. cc of 10 percent solution (100 milligrams) fixed with 3. cc of 10 percent Dextrose should produce satisfactory one-sided anesthesia.

In inguinal hernias we have found that it does not go high enough, so the usual technique is used and recommended.

We have had two failures of adequate one-sided fixation which we think are due to holding the patient on the side too long, and in too steep an elevation of the head of the table, also, using too little anesthetic agent.

We have had no distressing sequellae with these one-sided fixations as of collapse, or of post anesthetic headache.

CONCLUSIONS

1. This glucosed fixed unilateral type of spinal anesthesia is safe and satisfactory for the elderly patient.
2. Long anesthetic time permits adequate x-ray study in fractures.

Presented before the Joint Session of the Section on Surgery and Central States Society of Industrial Medicine and Surgery, Illinois State Medical Society, 103rd Annual Meeting, Chicago, May 18, 1943.

TUAMINE SULFATE

"Tuamine Sulfate" (2-Aminoheptane Sulfate, Lilly) is a sympathomimetic amine with strong vaso-constrictive action, developed in the Lilly Research Laboratories. Clinical investigations have confirmed the effectiveness of "Tuamine Sulfate" as a vasoconstrictor. The action of a 2 percent isotonic solution, compared with a like concentration of ephedrine sulfate, brought about much greater constriction and more pronounced ischemia. The appearance of the nasal mucosa approximated that following the application of a 1:1,000 solution of epinephrine. One percent "Tuamine Sulfate" was also found to exceed the effect of the ephedrine, while 0.5 percent was about equal in vasoconstrictor action.

"Tuamine Sulfate" is unique among vasoconstrictor drugs since it produces nontraumatic shrinkage of the nasal mucosa without undesirable systemic effects. The isotonic solutions are within the acid range of pH and are well tolerated even by abnormally sensitive membranes without altering the flow of nasal secretions.

Industrial Health

Committee On Industrial Health — Frederick W. Slobe, Chm., 2024 South Western Ave., Chicago, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington, Milton H. Kronenberg.

POST-GRADUATE COURSE IN INDUSTRIAL MEDICINE AND HYGIENE

Presented under the auspices of the Committee on Industrial Health of Illinois State Medical Society and the Chicago Medical Society.

General Statement

Industry today demands the services of physicians who are familiar with available knowledge of potential health hazards. Particular attention is focused on the field of industrial health problems at this time by both employers and employees concerning the effects occupations may have on health.

In sponsoring this course the Committees on Industrial Health of the Illinois State Medical Society and the Chicago Medical Society are convinced that the present trend in the industrial health field makes it imperative that physicians with industrial contacts and those in private practice have a working knowledge of current problems in industry as they relate to medicine.

Physicians should be cognizant of the wide field of industrial medicine and hygiene, as they may be called upon to make recommendations in regard to protective measures for all occupational health hazards. It is only proper that physicians assume this responsibility.

All lectures scheduled will be held at the University of Illinois, College of Medicine, 1853 West Polk Street, Chicago. The course will be conducted principally by physicians in industrial medical practise.

All registrations must be received by December 27, as the class is limited to 40 physicians.

The fee for the course is $25, payable at the time of registration.

The length of the course will be twelve weeks, beginning January 4, 1944 and ending March 28, 1944.

Checks should accompany the registration blank and be made payable to the University of Illinois, College of Medicine, Chicago.

Address all inquiries for further information to:

Dr. Frederick W. Slobe
2024 South Western Avenue
Chicago, Illinois

PROGRAM

Evening Sessions
Session No. 1

Tuesday, January 4, 1944
7 P.M.

Address of Welcome:
Raymond B. Allen, M.D., Dean, College of Medicine, University of Illinois

Response:
Robert S. Berghoff, M.D., Vice President, Illinois State Medical Society and
Oscar Hawkinson, M.D., President, Chicago Medical Society

"HOW DOES THE INDUSTRIAL MEDICAL DEPARTMENT OPERATE"

Presiding: Edward Holmblad, M. D., Managing Director, American Association of Industrial Physicians and Surgeons

Lecturer: Joseph H. Chivers, M.D., Medical Director, Crane Company, Chicago

Directed by the University of Illinois, College of Medicine and the Division of Industrial Hygiene, Illinois State Department of Public Health.

Session No. 2

Tuesday, January 11, 1944

7 P.M.

"THE PNEUMOCONIOSES" — The Dusty Trades

Presiding: Will F. Lyon, M.D., Medical Director, International Harvester Company, Chicago

Lecturers: Milton H. Kronenberg, M.D., Division of Industrial Hygiene, Illinois State Health Department and

Adolph Hartung, M.D., Professor of Radiology, University of Illinois, College of Medicine

Session No. 3

Tuesday, January 18, 1944

7 P.M.

"INDUSTRIAL TOXICOLOGY AND POISONINGS"

Lead and the heavy metals

Presiding: Carl M. Peterson, M.D., Secretary, Council on Industrial Health, American Medical Association, Chicago

Lecturer: Robert A. Kehoe, M.D., Director, Kettering Laboratory of Applied Physiology, University of Cincinnati, College of Medicine

Session No. 4

Tuesday, January 25, 1944

7 P.M.

"INDUSTRIAL TOXICOLOGY AND POISONINGS" (cont.)

Fumes, gases and vapors

Presiding: Richard Bennett, M.D., Chief Surgeon, Carnegie-Illinois Steel Company, Chicago

Lecturer: James H. Sterner, M.D., Eastman Kodak Company, Rochester, N. Y.

Session No. 5

Tuesday, February 1, 1944

7 P.M.

"MEDICAL PROBLEMS IN INDUSTRY"

Presiding: Harold Earnhart, M.D., Medical Director, Swift and Company, Chicago

Lecturer: Robert W. Keeton, M.D., Professor of Medicine and Head of Department, University of Illinois, College of Medicine

Session No. 6

Tuesday, February 8, 1944

7 P.M.

"INDUSTRIAL DEMATOSES"

Presiding: Francis E. Senear, M.D., Professor of Dermatology and Head of Department, University of Illinois, College of Medicine

Lecturer: Louis Schwartz, M.D., Chief, Dermatoses Investigation Section, Division of Industrial Hygiene, National Institute of Health, Bethesda, Maryland

Session No. 7

Tuesday, February 15, 1944

7 P.M.

"INDUSTRIAL MEDICAL ASPECTS OF FATIGUE, NOISE, HUMIDITY, TEMPERATURE EXTREMES AND ABNORMAL PRESSURES"

Presiding: Wm. D. McNally, Coroners Chemist, Cook County, Chicago

Lecturer: George E. Wakerlin, M.D., Professor of Physiology and Head of Department, University of Illinois, College of Medicine

Session No. 8

Tuesday, February 22, 1944

7 P.M.

"PROTECTING THE PLACE OF EMPLOYMENT"

Presiding: Kenneth M. Morse, Industrial Hygiene Engineer, Illinois State Department of Public Health, Chicago

Lecturer: John J. Bloomfield, Senior Sanitary Engineer, Chief, States Relations Section, Division of Industrial Hygiene, National Institute of Health, Bethesda, Maryland

Session No. 9

Tuesday, February 29, 1944

7 P.M.

"ESSENTIALS IN EMERGENCY TREATMENT"

Presiding: R. J. DeMotte, M.D., Chief Surgeon, Pullman-Standard Car Manufacturing Company, Chicago

Lecturer: Frederick W. Slobe, M.D., Medical Director, Automatic Electric Company, Chicago

APPLICATION BLANK

UNIVERSITY OF ILLINOIS
College of Medicine
1853 West Polk Street, Chicago
Application for Admission
to
Post-Graduate Course
in
Industrial Medicine and Hygiene
January 4, 1944 — March 28, 1944

Date

I hereby apply for admission to the Post-Graduate Course in Industrial Medicine and Hygiene to be held from January 4, 1944 to March 28, 1944.

Name Age

Home Address
Number and Street
.....
City

Office Address
Number and Street
.....
City

I am a: (Please check appropriate category)

.... Licensed physician but not engaged in industrial practice.

.... Licensed physician engaged in part-time industrial practice.

.... Licensed physician engaged in full-time industrial practice.

.... Other (If none of the above applies)

Medical School Attended:
.....
From To
Degrees
Licensed to practice medicine in
State and year
.....
Present Industrial Affiliations:
.....
Present Hospital Affiliations:
.....
.....

Signature of Applicant
Accepted
Date

Session No. 10

Tuesday, March 7, 1944
7 P.M.

"THE INDUSTRIAL PHYSICIAN AND COMMUNITY HEALTH RELATIONSHIPS"

Presiding: Leroy Sloan, M.D., Chicago, Illinois

Lecturer: Harold A. Vonachen, M.D., Medical Director, Caterpillar Tractor Company, Peoria, Illinois

Session No. 11

Tuesday, March 14, 1944
7 P.M.

"MEDICO-LEGAL ASPECTS OF INDUSTRIAL MEDICAL PRACTICE"

Presiding: Frank P. Hammond, M.D., Secretary, Chicago Society of Industrial Medicine and Surgery

Lecturers: Clarence O. Sappington, M.D., Consulting Industrial Hygienist, Chicago, and
Mr. Frank Peregrine, Attorney, Chicago

Session No. 12

Tuesday, March 21, 1944

Field trip for registrants.

Name of plant to be visited and other arrangements to be announced by the Chairman of the course.

Session No. 13

Tuesday, March 28, 1944

Dinner (informal)

Toastmaster: Harold M. Camp, M.D., Secretary, Illinois State Medical Society

Address: "The Responsibility of the Physician in Industrial Practice".

Clarence D. Selby, Medical Consultant, General Motors Corporation, Detroit, Michigan

The opportunity offered by routine x-ray or fluoroscopic chest examinations of adult admissions to general hospitals as a source of tuberculosis case finding has not been fully utilized. In a recent survey in a New York hospital tuberculosis was found in approximately 4% of the patients. These cases would not otherwise have been detected. Of these 2.8% had reinfection disease and 0.6% had active or questionably active disease requiring hospitalization or close observation. William B. Childress, M.D. et al. Jour. Amer. Med. Assn., Aug. 14, 1943.

THE SCOPE OF MEDICAL SERVICE IN INDUSTRY

With Special Consideration of The Private Practitioner

C. O. Sappington, Dr. P.H.,
Industrial Health Consultant
CHICAGO

The keystone of industrial medical service is the pre-placement physical examination. The term indicates the time at which the examination is done and the object of it. Most all other activities are built around this examination and the results obtained. It becomes, therefore, of tremendous importance in indicating what other procedures are necessary.

The keynote of industrial medical service is prevention in the form of a health promotional campaign to keep employees well and on the job instead of merely curing them of injuries and diseases after absenteeism has occured, although it is conceded that the latter procedures will always be an essential part of the service. Industrialists, however, and employers in general are very much concerned about cutting down the amount of lost time and money resulting from injury and illness, and are therefore concerned that medical departments shall proceed along preventive lines.

Well-considered job placement, according to the capacities and limitations of the applicants and the job requirements, becomes one of the first steps in the program of preventive medicine in industry. The basis for selective placement is found in various elements in the history taken at the time of the preplacement examination (such as age, sex, color; previous illness, operations, injuries, pregnancies, menstrual and menopausal experiences; previous industrial experience); constitutional development; attitudes and appitudes; physical, X-ray and laboratory findings. In short, the worker is placed where he or she can be utilized best, with the least probability of injury, illness, or aggravation of previously existing tendencies of weaknesses.

The next portion of the superstructure of preventive medical service in industry follows as a natural sequence of the preplacement examination procedures and the findings, and is represented by the supervision, follow-up and referral of individuals for the correction of physical defects found at entrance to employment—these may be defective vision, enlarged and infected tonsils, carious teeth or pyorrhea, deformities of various kinds, poor posture, varicose veins, hernia, or peculiar mental attitudes, mentioned as examples.

The best present-day example of scientific placements, based upon physical examination findings at entrance to employment and also the correction of remedial defects, is found in the modern visual program in industry; here the visual requirements of various jobs, having been carefully determined, the workers whose visual performances conform to such requirements are thus allocated. An extensive industrial visual program has been found to be especially important where highly developed visual skills are necessary in certain types of jobs, and also where considerable responsibility is placed upon employees for the safety and lives of other persons.

Periodic re-examinations, a form of health audit, are done on an annual inventory basis, or more often in certain departments where there are known potential hazards—or because of age or certain constitutional tendencies which require a more frequent check. There is here presented another opportunity for the correction of poor health habits, of potentially injurious occupational exposures correctible physicial infirmities or psychological twists.

The dispensary service occupied mostly in rendering first aid to minor injuries and illnesses is another manifestation of the preventive program. Some experienced industrial physicians believe that it is possible to predict with fair accuracy the probable index of absenteeism, the percentage of labor turnover, and work instability, predicated upon the dispensary records of individual employees. In addition to this, opportunity is afforded to study the causes of minor injuries and illnesses (in investigations with reference to working conditions) thus providing a basis for the control of causative factors, assisting in the avoidance of recurrences, and supplying the foundation for accident prevention and personal hygiene recommendations.

Health and safety educational procedures follow as a natural additional step, not only on the minor experiences as indicated, but in the more severe instances. Since ailments of nonindustrial kinds are the most costly and most potent causes of absenteeism, health information becomes a vital factor in securing the interest

and cooperation of the employees, in an effort to safeguard their greatest personal asset—sound health and a safe existence. The media by which information is conveyed are well-known to most persons, including scheduled talks, posters, columns in plant papers, motion pictures, sound slide films, and various methods which have eye and ear appeal.

Industrial feeding and the nutrition programs, at least in their supervisory aspects, provide another basis for health education—appropriate methods of appetite appeal in booklets, posters, menus, exhibits, and food in cafeterias and lunchrooms, scientifically chosen and prepared, as well as popularly priced, eventually produce good results.

The control of the working environment represents one of most important elements in the prevention program—having a great deal to do with the comfort, health and safety of employed groups. Freedom from harmful dusts, gases, fumes, and vapors, through the use of special exhaust ventilation systems or personal protective equipment; protection against injury by guards, safe habits, personal protective devices; adequate general ventilation and lighting; well arranged seating; convenient and well-maintained toilets and washing facilities; and good plant housekeeping, are some of the environmental factors that have a favorable influence on the efficiency, health and stability of industrial workers.

On the borderline between preventive and curative measures, lie what are called case-finding programs, applying more especially to tuberculosis, venereal disease, heart disease, and the like. Although not the primary responsibility of the industrial medical department, these maladies produce great losses of time and money to employees and employers and therefore present an important economic problem. In case-finding methods, the diagnostic services of industrial medical departments render an invaluable service to employees, private physicians, and community agencies, through the early recognition of incipient disease or moderately advanced conditions; prompt referral of cases to private practitioners —when treatment can be most effective and rehabilitation less costly in money and time. These measures result in the more rapid return of workers to industry and the community, as self-supporting citizens.

The curative measures which are patently the responsibility of industry are represented by the medical and surgical care of injuries and occupational diseases, including provisions for an emergency service. All states, except one, have legal requirements detailing the liability of employers for disability arising from industrial injuries, and about half of the states have similiar provisions with respect to occupational diseases. In connection with the curative procedures usually practiced in industrial groups, many establishments, even among the smaller groups, have found it advisable to use some of the more generally-known methods of diagnosis and treatment, including X-ray films, certain laboratory tests, and physical therapy apparatus. Connections are actively maintained also with hospitals for such cases as need hospital care, with various city and county clinics, and other community agencies which have been found to be of great supplementary help. Visiting nursing services have also been used to considerable advantage, especially with reference to checking up on the progress of illness or injury recovery, and otherwise assisting in keeping contact with absentees, without "policing" employees.

The private practitioner in general practice and in the specialities can be of considerable assistance in the program of medical service in industry in several ways: by discussing and reporting upon referred cases periodically; by making regularly scheduled visits to industrial plants, at which time the physician can see various cases, hold consultations, as well as investigate accidents and illnesses in the making of periodic inspections throughout the plant. The number of part-time physicians serving industries greatly exceeds the number of full-time physicians in similiar capacity, and will continue probably to show a greater excess, especially for the duration of the war.

In conclusion, industry presents an unusual opportunity for private practitioners, both in general practice and the specialties, to assist industry in keeping up the medical service program, conducting these activities either at their own private offices (which will help a great deal) or making regularly scheduled trips to plant dispensaries (which is much the best method).

SUGGESTED ACTIVITIES OF COUNTY INDUSTRIAL HEALTH COMMITTEES*

1. To sponsor programs for county medical society meetings devoted to phases of industrial health. (On request, the state committee will suggest competent speakers for such programs.)

2. To be prepared to offer suggestions and advice to local managements as to the soundness of their medical programs in the light of accepted standards of industrial medical practice.

3. To encourage physicians to study health hazards, health conditions, and working environments by personal visits to industrial plants so they will be prepared to advise both management and employees on preventive programs and procedures.

4. To advise physicians and managements of the legal responsiblities and limitations involved in the activities of nurses and lay personnel and to advocate procedures which will protect all those who participate in the medical program of an industry.

5. To encourage physicians to submit complete reports, based on accurate records, on industrial medical services and to transmit promptly reports which may be required by the State Industrial Commission and the State Department of Health.

6. To cooperate with the Committee on Industrial Health of the Illinois State Medical Society in the promotion of post-graduate and refresher education for physicians in industrial health and industrial medicine and in the distribution of education material.

7. To assist the War Participation Committee of the local medical society, the War Participation Committee of the state society and the Procurement and Assignment Service for Physicians in meeting the medical personnel problems of the industrial community.

8. To cooperate with other professional organizations, with official and non-official agencies, with civic and educational organizations, with managements and with labor groups, individually or on a joint committee basis, in the maintenance or development of appropriate community programs of treatment, rehabilitations, prevention or education which affect the industrial population. (Specifically, there should be cooperation with the following groups, for example: local societies of dentists and nurses, health commissioners and their staffs, voluntary health organizations and those interested in specific fields such as tuberculosis, venereal diseases, etc., luncheon clubs, women's organizations, groups interested in nutrition, local manufacturers' organization or chamber of commerce labor organizations, Red Cross, local Council on Civilian Defense, and other civic organizations.)

The personnel and facilities of various agencies, such as the Council on Industrial Health of the American Medical Association and the Division of Industrial Hygiene of the State Department of Public Health, should be utilized on technical matters and for consultation. The integration of the work of the practicing physician with that of official and nonofficial agencies which are qualified and prepared to make worthy contributions is not only desirable but necessary.

Obviously, to be assured of success, the program of the local committee should be such as to win the cooperation of labor, management and the citizens of the community generally.

The support of the worker can be secured if he can be shown that an adequate health service at his plant will produce conditions that enable him to work with a minimum of lost time due to illness or injury and consequently with greater profit for himself and his family.

In conferences with the employer, emphasis should be placed on the fact that "health security" for employees will benefit him in the form of less labor turnover, less absenteeism from injury and illness whether industrial or non-industrial, reduced compensation costs, and happier and more efficient workmen.

From the standpoint of the community at large, no argument can be more telling than the one that an industrial health program can help to minimize unemployment, alleviate suffering and distress, and promote mutual good will and cooperation between employers and employees.

*Adapted from an outline prepared by the Committee on Industrial Health, Ohio State Medical Society.

We speak of educating our children. Do we know that our children also educate us? — Mrs. Sigourney.

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

Blue ribbons for pictures of special merit were awarded to 14 entrants in the Field Museum's First International Photographic Exhibit which opened September 15th. Altogther, 152 photographs, out of nearly 400 submitted, all bearing on various phases of nature were shown. Dr. Max Thorek of Chicago was one of the blue ribbon winners.

R.M. Strong, Ph.D., professor of microscopic anatomy and Chairman of the Department of Anatomy, and Thesle T. Job, Ph.D., professor of gross anatomy at Loyola University School of Medicine, Chicago, were guests of honor at a banquet Sunday evening, October 31, at the Medinah Athletic Club. Both men have completed twenty-five years of continuous teaching service at the Medical School.

Basil C.H. Harvey, Ph., M.B., Dean of Students at the Medical School of the University of Chicago, Leslie B. Arey, Sc.D., Ph.D., Professor of Anatomy at Northwestern University Medical School, and Raymond B. Allen, Ph.D., M.D., Dean of the Medical School of the University of Illinois spoke in appreciation of the long and distinguished service of Drs. Strong and Job.

Other speakers included Theodore E. Boyd, Ph.D., of Loyola University School of Medicine, the Reverend Edward F. Maher, S. J., Regent of Loyola Medical School, and Reverend Joseph M. Egan, S. J., President of Loyola University.

The banquet was sponsored by the Sophomore Class of the Loyola Medical School.

The Central States Society of Industrial Medicine and Surgery held an all day scientific meeting in Chicago on December 3rd.

Doctors J. A. Brown and Fred C. Hamilton, members of the Kankakee County Medical Society, were honored at a dinner given in Kankakee on November 9th. City officials and civic leaders attended the meeting at which time the 50 year button and certificate were conferred by the Illinois State Medical Society upon these two doctors who have just completed fifty years in the practice of medicine.

Dr. Louis J. Tint of Chicago showed his colored movies on "The Spirit of the Grand Canyon."

A dinner meeting of the Macoupin County Doctors was held at the Evangelical Hall, Carlinville, at 6:45 p. m. on Tuesday, November 23rd, 1943.

Dr. Herbert B. Henkel of Springfield, Illinois, was the speaker, his topic of discussion being "Symptoms and Diagnosis of Common Urologic Conditions."

MARRIAGES

Charles M. Drueck Jr., Chicago, to Miss Alice Lucile Finch of Iroquois, Ill., September 11.

Warren Francis Smith, Oak Park, Ill., to Miss Barbara O'Malley of Chicago recently.

Herman Gladstone, Chicago, to Miss Madge Willstatter of New York, October 17.

DEATHS

Henry W. Case, Chicago; Hahnemann Medical College and Hospital, 1891. Had practiced medicine on Chicago's south side for 52 years. Died in November, 1943 at the age of 79 years.

Oscar Lee Hansen, Chicago; Rush Medical College, Chicago, 1897; served during World War I; died in the Veterans Administration Facility, Downey, Ill.,

September 19, aged 73, of chronic myocarditis and arteriosclerosis.

Stephen A. Hemmi, Chicago; Rush Medical College, 1894. Had received a 50-year pin from the Illinois State Medical Society. Died in October, 1943 at the age of 85 years.

C. C. Hill, Galesburg; Keokuk Medical College, College of Physicians and Surgeons, Keokuk, 1901. Had practiced in Manito for many years. Died October 18, 1943 at the age of 67.

Charles F. Isaacs, Chicago; Northwestern University Medical School, 1904. Died October 27, 1943 at the age of 66.

Thourston G. Jorgenson, Chicago; Chicago Medical School, 1922. Was a native of Sweden; practiced on Chicago's south side for many years. Died November 6, 1943 at the age of 53.

Albert B. McQuillan, East St. Louis; Washington University School of Medicine, 1903. President of St. Clair County Medical Society; fellow of the American College of Surgeons since 1916. Died of heart ailment November 12, 1943 at the age of 63.

Nelvin M. Moore, Rock Island; Rush Medical College, 1895. Had practiced medicine in Rock Island since 1900. Died suddenly of a heart attack October 24, 1943 at the age of 74.

Oscar Burton Ormsby, Murphysboro; St. Louis College of Physicians and Surgeons, St. Louis, 1897. Died October 24, 1943, following a stroke, on his 67th birthday.

Douglas A. Payne, Chicago; College of Physicians and Surgeons, Baltimore, 1887. Practiced medicine in Chicago for nearly 60 years. Died November 24, 1943 at the age of 92 years.

George Francis Scheib, Champaign; University of Illinois College of Medicine, 1899. Eye, ear, nose and throat specialist in Champaign since 1915. Had been ill for many months. Died November 2, 1943 at the age of 76.

Matthew T. Smith, Chicago; Loyola University School of Medicine, 1924. Associate professor of surgery at Loyola University. Died of a heart ailment November 9, 1943 at the age of 46.

Constantine Theodore, Chicago; National University of Athens, 1902. Was county jail physician for the last 28 years. Died probably of a heart attack November 24, 1943 at the age of 64.

David Orval Thompson, Sycamore; Chicago Medical School, 1923. Had practiced in Sycamore for 30 years. Died suddenly of a heart attack November 6, 1943, at the age of 60.

Wilbur Andrew Uehren, Aurora; Rush Medical College, 1901. At one time was health commissioner of Aurora. Died of a heart ailment November 20, 1943 at the age of 65.

Frank F. Wagoner, Chicago; Rush Medical College, 1925. Died apparently of poisoning November 3, 1943 at the age of 48 years.

P. R. N.

The Jocular Jingles of C. G. F.

by

Charles G. Farnum M. D.

Peoria, Ill.

P.
R.N.,
Professor
Paresis and
Sophistes the
Seer extend most
cordial greeting to
each of you. In a war-
torn world with grief,
tragedy, suffering and sac-
rifice stretching throughout
its length and breadth we
would again greet you with the
beloved, albeit for the time for-
gotten salutation, "Peace on Earth,
Good Will to Men." And it is to be
remembered that it is the renunciation
of the principle behind that salutation that
has cast our world into chaos. May it be
given to you and yours to be spared in all possible
measure the grief and sadness that comes from war.
May
your
house
hold
be an
island of peace
in this ocean of strife.

SEASONABLE SONNETS

DECEMBER

December with its shorter, colder days
Reminds us of our post-meridian life;
Yet long and peaceful eves by firelight blaze
Affords surcease from hours of work and strife.
The juncos, sparrows, red birds, chickadees
Right merrily accept what winter sends,
While we, protesting bleak and nipping breeze,
Already long for days when winter ends.
With joy and song we hail the Christmas time,
The sweetest of illusions to remain,
For one brief space we rise to heights sublime,
Then promptly drop in former ruts again.
Hope must defeat experience, I fear,
To give one courage for another year.

P. R. N. — (Continued)

SOPHISTES, THE SEER, PONDERETH THE ENDING OF THE YEAR

The passing of the seasons bringeth us to the ending of another twelve-month, whereby there hath been added that much of labour and accomplishment to our already goodly store and by that same token there hath been subtracted an equal span from the days that we shall labour.

And one meditateth deeply on the ways of the healing art and he wondereth what manner of thing it becometh in the future. What with transgressions by the state and trespassings by this and by that selfish and untutored group from without he faceth the question of whither it goest.

He considereth the horde of remedial measures that cometh with virgin newness and great acclaim from those who manufacture or suggest them and which for a time loom large on the horizon of healing and then a goodly part sink into oblivion and he wondereth which of this year's crop thereof will survive the crucible of usage. Likewise he thinketh of the many ancient methods from hoary antiquity that persist despite their uselessness and which long ago should have been swept away by the river of time and cast into the ocean of memory. Yet withal the level of the healing art riseth year by year despite the evils that beset it and much hath been hewn from the mountains of ignorance, albeit the mountains still remain.

And then one meditateth upon the stream of human wreckage that cometh daily and upon the mystery of life, decadence and death. Upon the unconquerable desire to live when life hath long since ceased to give aught but tribulation and mockery. Upon transcendent hope that outweigheth experience and reason. Upon the abysmal ignorance that carrieth the individual inexorably onward to annihilation. Upon the limitless credulity of the human that leadeth him into the snares of charlatanism and quackery. Upon the numberless cults foundationed upon ignorance and veneered with religion, albeit the veneering is very thin and hath many cracks therein. Upon the healers and their methods, purporting to offer something new but possessing only the ancient tricks badly disguised. Upon gratitude and the absence thereof whereby the man of healing becometh elevated to a place among the gods or is consigned to a place among devils — ofttimes each being wrong and are but the viewpoint of myopic intellects. Upon the numberless times that our advice, directions, explanations, arguments, preachments, diatribes and pleading avail nought. Yea, verily, it requireth a stout heart to carry on and become not morbid and that discouragement shall not interrupt the continuity of our labours.

Oft cometh before us the ancient enigma of why one who seemeth so necessary be taken and one so wholly without worth be spared, or why our efforts to save shall be rewarded when the object thereof is not worthy of the saving. Ofttimes it seemeth that the survival of the unfit prepondereth.

Verily the rules of life and death are cryptic, insoluble and inpenetrable.

And then one contemplateth the fortitude of women to whom naught of anguish or denial mattereth so long as they can survive and minister to their beloved and who murmur not; the unheralded bravery of men who look Death squarely in the eye and accept the bludgeonings of Fate and who whimper not nor turn back; the confidence and patience of children whose adaptability to suffering seemeth as natural as to pleasure and to whom happiness cometh from trifles and our heart waxeth warm for the countless unsung heroes who fight bravely and sturdily on when only defeat awaiteth.

Verily life then becometh worth the while and the scant amount that one doeth or can do becometh all too small; yet it engendereth in our soul much of peace and satisfaction and transformeth living into a thing of boundless joy.

Thus saith Sophistes, the Seer.

COST OF "LYOVAC" BLOOD PLASMA REDUCED AGAIN

Sharp & Dohme announced on November 1 another price reduction in the cost of "Lyovac" Normal Human Plasma for civilian medical practice. When the product was first made available in 1941 it carried a list price of $44.80, and this was reduced to $37.50 in 1942. The present reduction brings the list price to $33.00, subject to the company's usual schedule of discounts.

Heavily increased production due to wider and greater use of this dried blood plasma has resulted in lowered production costs which are being passed along to distributors and ultimate users. It is the company's policy to supply this life-saving product at a low cost in order to make it economically available to as many persons as possible.

Dried blood plasma is a development of Sharp & Dohme research covering a period of over twelve years. Prior to Pearl Harbor the company was the only processor of dried blood plasma for the Army and Navy, and, because the company's processes and experience were made available to other manufacturers for the purpose of processing dried plasma for our military forces, this fact received special recognition when the Army-Navy "E" was awarded to Sharp & Dohme.

Of the tuberculosis found among men examined at the U. S. Induction Center in Massachusetts, 10% were far advanced, 25% were moderately advanced and 65% early cases. This exactly reverses the usual percentages among cases admitted to sanatoria of whom 65% are far advanced, 25% moderately advanced, 10% early. David Zachs, M.D., Mass. Tb. League News Bull., April, 1943.



WE'RE COMING, LITTLE MADELON

You were born on the night black tanks first clanked down the darkened boulevards. You've never laughed, you've never played, you've never learned the sweet goodness of bread fresh-baked . . . We're coming to set you free, Madelon, to teach you the joy of free laughter, to demand that good food and proper medical care be given to all people.

Yes, you may be in one of our hospitals for awhile. You'll like that, little Madelon. Our doctors will take care of you so the father you've never seen will find a pretty young lady when he comes home again. The doctors will be kindly men who will make you well and strong. They will be gallant and courageous men possessing the most modern equipment and supplies the world has ever known.

CIBA feels a responsibility to you, little Madelon . . . to you and all the small Madelons in every invaded country. We're coming soon . . . we're on the march. Pledged to supply the medical profession in peace and in war with worthy, modern pharmaceuticals to perform their vital missions.

MORE THAN A HALF-CENTURY OF METICULOUS, INTELLIGENT RESEARCH AND PRECISE SUPERVISION GUARD EVERY CIBA PRODUCT.

CIBA

Pharmaceutical Products, Inc.

SUMMIT • NEW JERSEY

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Book Reviews

A Surgeon's World. An Autobiography. By Max Thorek, M.D., J. B. Lippincott Company, Philadelphia. Price $3.75.

From past scientific articles, "Modern Surgical Technic", "Plastic Surgery of the Breast and Abdominal Wall", etc., Max Thorek of Chicago has turned his literary ability to a new field, that of autobiography. His varied and versatile experiences lend themselves easily and naturally to this type of "story telling". We meet here the man and the surgeon, and both are worthy of aquaintance.

The story of his life would not be complete without the constant shadow of Mrs. Thorek, coloring and influencing his work and activities, and whose story is interwoven deftly and gently with that of his own.

For an Illinois physician many familiar names march thru these pages, Kellog Speed, A. A. Hayden, George Dick, D. J. Davis, Roger T. Vaughan, Archibald Hoyne, Dean C. B. H. Harvey J. B. Murphy, Arthur Dean Bevan, Ludvig Hektoen, and many others.

Medical education yesterday and today, American standards contrasted with those of his native Austria, and other European countries, organized medicine and its importance to the young physician, the surge forward in medical education and research in this country, are all a part of the material presented.

There are pleasant hours of reading in this new book, and while it keeps the lay reader in mind, there are professional references which will appeal definitely to the physician and which he and he alone will read with sympathy and understanding. F. C. Z.

Clinical Laboratory Methods and Diagnosis. Gradwohl, R. B. H. 2 volumes. Third edition. The C. V. Mosby Company, St. Louis, 1943. With 726 text illustrations in both volumes and 57 color plates.

The first volume contains ten chapters as follows: General Considerations; Urine Analysis; Blood Chemistry; Hematology; Blood Groups and Transfusion; Gastric Analysis; Examination of Puncture Fluids; Examination of Sputum; Special Tests; Feces. Volume II contains chapters 11 to 20 as follows: Bacteriologic Applications to Clinical Diagnosis; Serology; Basal Metabolism; Postmortem Examinations; Tissue Cutting and Staining; Preparation of Museum Specimens; Toxicologic Technic; Detection of Crime by Laboratory Methods; Parasitology and Tropical Medicine; Minimum Supplies, Equipment, and Reagents for Pathological Laboratories.

The book is particularly well indexed, the index occurring in both volumes and showing in which volume each item is located.

It describes laboratory procedures so well that it would be helpful even to inexperienced laboratory workers. It also deals with the clinical aspects of various disorders touched on in a way that would interest the clinician as well as the pathologist and laboratory worker.

The chapter on Parasitology and Tropical Medicine is particularly interesting and should be read by every clinician especially at this time when our troops are in all quarters of the globe.

There is also an interesting chapter on the detection of crime and one on toxicology. These

(*Continued on page 32*)

28 WORDS
tell the story...

Clinical tests* showed that when smokers changed to PHILIP MORRIS Cigarettes, every case of irritation of the nose and throat due to smoking cleared completely or definitely improved.

*Laryngoscope, Feb. 1935, Vol. XLV, No. 2—149-154.

TO THE PHYSICIAN WHO SMOKES A PIPE: We suggest an unusually fine new blend — COUNTRY DOCTOR PIPE MIXTURE. Made by the same process as used in the manufacture of Philip Morris Cigarettes.

BOOK REVIEWS (Continued)

should be of interest to coroners physicians and to medical examiners where the outmoded coroner has been so replaced.

The much exploited vitamins come in for some attention—a discussion of the disease states due to deficiency of various vitamins and also a discussion of laboratory methods for the indentification of these substances in the blood and body fluids. It is heartening to meet a book in which this much exploited subject is treated with only the approximate amount of attention it deserves.

J. H. H.

General Practice Clinics, published by Washington Institute of Medicine, Washington D. C., Vol. No. 1. September-October 1943. Subscription rate $9.00 per year, $25.00 for three years.

This newcomer has an editorial board composed of 81 men representing medical schools and clinics from one end of the country to the other. It has the following to say about itself:

"General Practice Clinics is planned and edited for the general practitioner, presenting clearly and authoritatively all of the essential information so vital to successful diagnosis and treatment.

* * * Here, in one publication, in concise form, you have called to your attention all of the new, tried and proved advances in general medicine and surgery, including obstetrics, gynecology, pediatrics, dermatology, urology and otorhinolaryngology. A complete coverage of all the conditions and problems of medical practice which the general practitioner is called upon to treat daily."

This issue contains abstracts of 108 articles. It is well indexed and on that score has the following to say: "Published bi-monthly: September, November, January, March, May and July. Each issue contains a cross reference subject and author index, with a cumulative index included at the completion of each volume (July issue)."

This certainly is a step in the right direction, i. e., making articles available in brief form so that the hurried practitioner can get their significant points without the loss of time necessary to read a complete article. It is burdened with no bibiography.

Medical Malpractice. By Louis J. Regan, M.D., LL.B., Member State Bar of California. The C. V. Mosby Company, 1943. St. Louis. Price $5.00.

The author, being a member of both the medical and the legal professions, has the unusual ability of being able to give information on the subject of malpractice from the standpoint of both professions.

He states that there are two types of malpractice claims or suits — the legitimate and the illegitimate or unjustifiable. No one can deny that there are cases of legitimate malpractice suits and every practitioner of medicine should know what is expected of him in every case and realize the requirements by law in his individual state.

In recent years there has been an increasing number of these suits against physicians throughout the country — particularly of the unjustifiable type. The physician must guard himself in every way possible to avoid moth criticism and the possibility of claims filed against him. Perhaps consultants should be called in more frequently for the protection of the physician responsible for the care of the individual. The attendant physician should partake more freely in the accessory services now made available such as the clinical laboratory, x-ray services, and the many other modern devices which contribute to making a more accurate diagnosis.

The author in this fine book first outlines in some detail such important subjects as the physician-patient relationship; special rights which must be respected; liability for acts of another; expert witness and expert testimony; when the physician is liable, and many other equally important and interesting topics which every physician should know. He stresses particularly the keeping of adequate and accurate records as an important protective procedure on the part of every physician.

A considerable amount of space in the book is devoted to malpractice prophylaxis, and this, in the opinion of the reviewer, is well worth the price of the book for any physician. The "musts" and "don'ts" are thoroughly outlined in detail. It may not be possible to avoid all threats of malpractice (especially those which are unjustifiable) but it is quite obvious to all who read

(*Continued on page* 34)

A letter at Christmas Time

JULIUS SCHMID, INC.
423-439 WEST 55TH STREET
NEW YORK

CARL J SCHMID

To the Physicians of America—

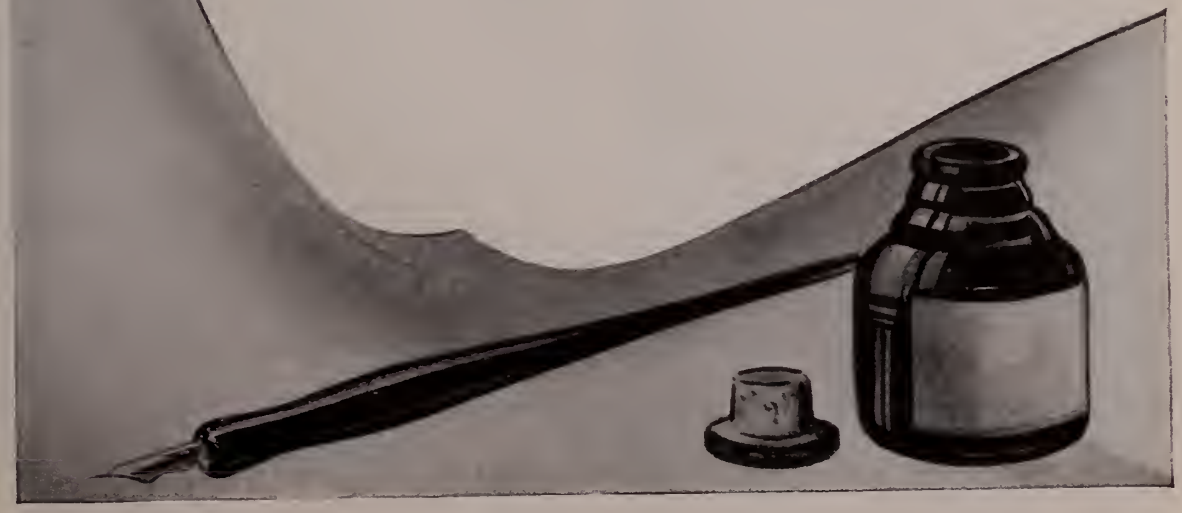
With the approach of the Yuletide season, let us all express the hope that, before another year has passed, we may be blessed with a just and enduring peace.

To all physicians in America we extend sincere best wishes for Christmas...for peace, prosperity and happiness during the coming year.

Julius Schmid, Inc.

Carl Schmid

Carl Schmid
President



BOOK REVIEWS (Continued)

this book that physicians who follow the recommendations of the author will be well protected indeed against the legitimate malpractice suits, and perhaps the unjustifiable cases will be reduced to a marked degree. The book should be in the library of every practicing physician, and quite probably it would be used frequently and freely.

GASTRO-ENTEROLOGY; (In Three Volumes). By Henry L. Bockus, M.D., Professor of Gastro-Enterology, University of Pennsylvania Graduate School of Medicine, Philadelphia. Volume I — The Esophagus and Stomach — W. B. Saunders Company, Philadelphia, 1943. Price $12.00.

There has been a remarkable advance in the knowledge concerning the physiological and classical aspects of disorders of the gastro-intestinal tract in recent years. The development of this book (the first of three volumes covering the entire gastro-intestinal tract) is positive evidence that one must first be a competent internist before endeavoring to specialize in this rapidly growing field.

The book is divided into three parts:

1. The examination of the patient.
2. The Esophagus and Diaphragm.
3. Affections of the Stomach.

In the first part the importance of careful and thorough history taking is well stressed; then in turn, chapters on symptomatology, the physical examination, the manner of utilizing the clinical laboratory and other methods of diagnosis, which choice of diagnostic aids are well presented.

Part two gives the anatomy and physiology of the esophagus, anomalies, stenosis of the esophagus, cardiospasm, then tumors, diverticula, peptic ulcers of the esophagus, esophagitis, dysphagia, varices and functional disorders of the esophagus, and diaphragmatic hernia, esophageal hiatus hernia and eventration of the diaphragm.

In the third part the anatomy and physiology of the stomach are discussed. The tests employed in the study of the gastric function and disease, and the analysis of the stomach contents are described in much detail. Then in turn the many stomach disorders seen in medical practice are thoroughly reviewed in a most interesting manner.

The book contains much of intense value to every physician and the field is thoroughly covered. It is written so that it will no doubt appeal to both the gastro-enterologist and the general practitioner alike. The several chapters on gastritis and common lesions of the stomach, and especially peptic ulcer, are well worth the cost of the entire volume.

Then a complete story of the benign and malignant lesions of the stomach is likewise given. The book is profusely illustrated with many fine illustrations of much value to the reader, showing the necessity in the studies of the gastro-intestinal tract of a complete cooperation between the gastro-enterologist and the roentgenologist, the services of the latter being indispensable if a thorough evaluation is to be made.

It is quite obvious from the contents of this first volume of the series of three that the second and third volumes will be welcomed by many modern physicians who are desirous of obtaining the latest information on this highly important subject.

NERVOUSNESS, INDIGESTION AND PAIN. By Walter C. Alvarez, M.D., Professor of Medicine, University of Minnesota; Consultant in the Division of Medicine, The Mayo Clinic, Rochester, Minnesota. 488 pages. Paul B. Hoeber, Inc., Medical Book Department of Harper and Brothers, 1943. Price $5.00.

Some years ago Doctor Alvarez wrote his now famous book entitled "Nervous Indigestion" in which it was definitely established that there is such type of disturbance in the gastro-intestinal system. This present book gives information of a similar nature which has been brought up to date and is thoroughly in keeping with the present day state of unrest prevailing throughout the world.

Doctor Alvarez has that rare ability to write in a most pleasing manner and to keep the reader both interested and fascinated throughout the entire book. He likewise discusses the basic problems of modern psycho-somatic medicine, for it is generally well known that especially during war time, there are certain emotional

(*Continued on page* 36)

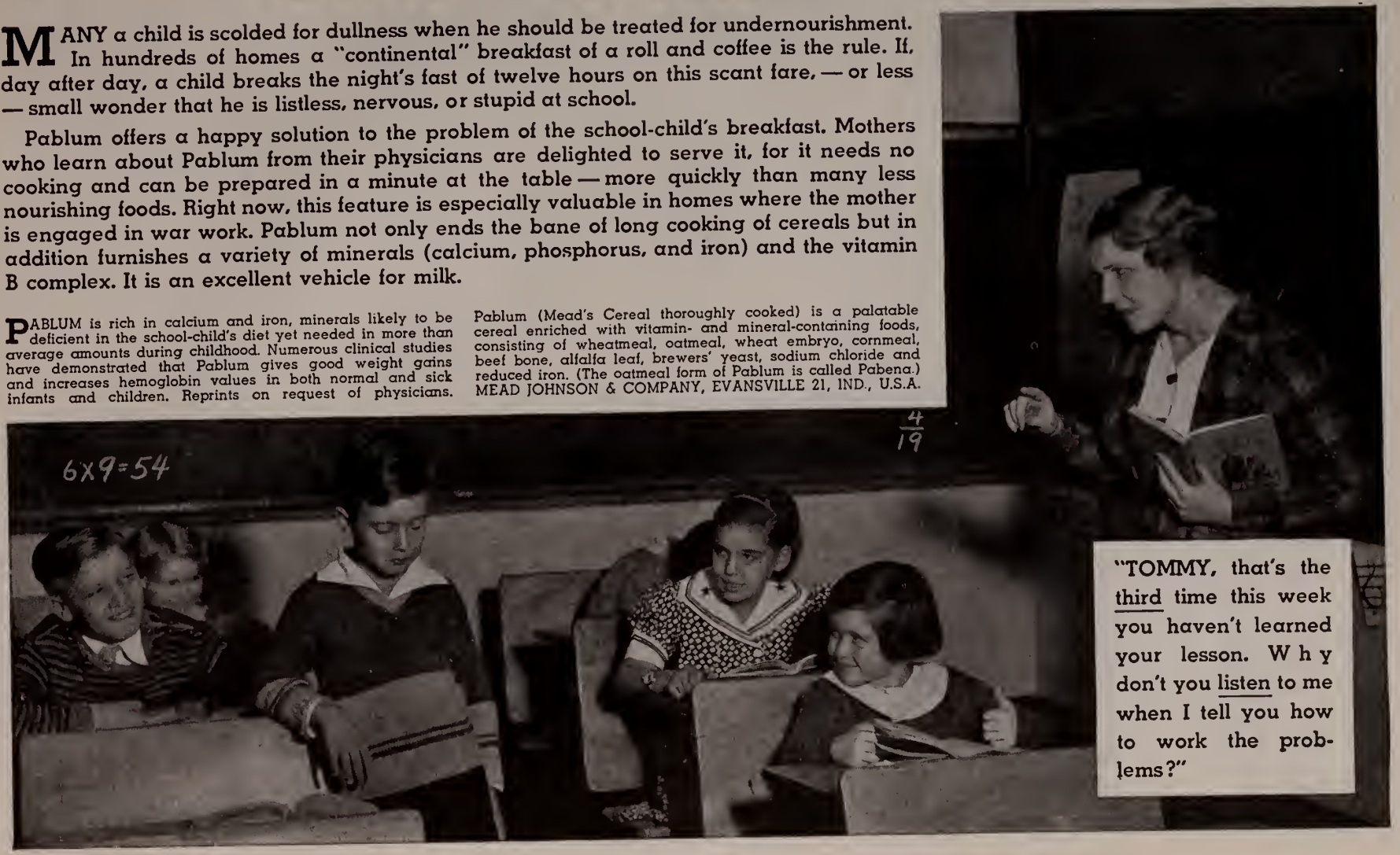
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MANY a child is scolded for dullness when he should be treated for undernourishment. In hundreds of homes a "continental" breakfast of a roll and coffee is the rule. If, day after day, a child breaks the night's fast of twelve hours on this scant fare, — or less — small wonder that he is listless, nervous, or stupid at school.

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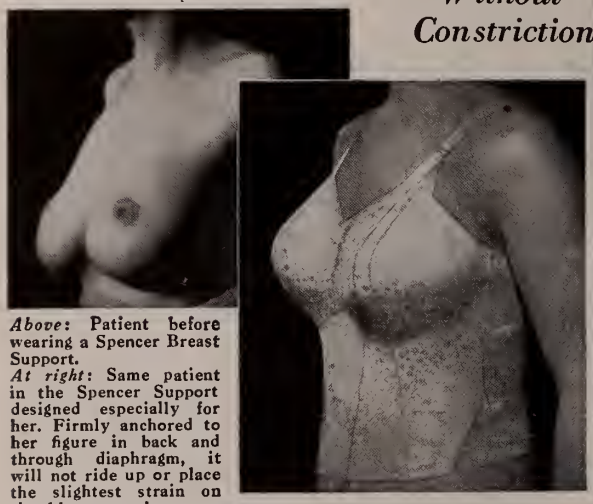
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BOOK REVIEWS (Continued)

trends responsible for many of the symptoms seen in the large majority of the patients seeking medical advice.

The relationship between certain emotional states and symptoms referable to the digestive tract are well brought out. Much emphasis is placed on the value to the practitioner of a carefully taken history and thorough physical examination. The physician who has mastered these arts can more readily evaluate properly the findings, make the logical diagnosis, and recommend the correct treatment. Much information is found that is not available elsewhere in any single volume. The reader can profit much through this reading, realizing that the material was written by a man who has had an immense amount of clinical experience and is capable of giving authoritative information from this unusually rich fund of knowledge accumulated over a period of many years.

Since Dr. Alvarez is a true philosopher, the book will enrich the minds of those who read it, and the reviewer most heartily recommends it to physicians everywhere who desire information on one of the most frequent problems confronting them, and for which they desire the latest up to the minute information.

CLINICAL ROENTGENOLOGY OF THE CARDIOVASCULAR SYSTEM. By Hugo Roesler, M.D., F.A.C.P., *Second Edition.* 480 pages. Charles C. Thomas, Springfield, Illinois. Price $7.50.

The modern considerations of heart disease in the many forms require the use of modern clinical accessories. In considerations relative to diseases of the heart, in addition to the frequent use of the electrocardiograph, carefully planned roentgenograms are indeed a "must." The subject and the present day considerations of heart disease have undergone many changes in recent years which have necessitated the revision of previous editions which have been most popular with cardiologists and clinicians throughout the country.

Much thought is given to the many applications of roentgenographic studies in heart disease and the proper methods as well as the position of the patient are well evaluated. Careful attention is given to accurate cardiac meas-

(*Continued on page* 38)



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BOOK REVIEWS (Continued)

urements and their correlation with other accepted methods of making these determinations. Likewise the correlation of clinical, anatomical and roentgenological findings is properly discussed.

The various types of cardiac disturbances, whether developing as a primary ailment, or secondary to infections elsewhere, are properly considered, and the author shows in much detail the value of roentgenological investigations in each type of condition.

The book is well prepared and is interesting reading to anyone in medicine who is interested in this highly important field. After all, heart disease is the greatest killer among diseases today. The book is well illustrated as would be expected in a work of this kind, and it should be of great interest to cardiologists and roentgenologists as well as to clinicians who treat this type of disease. Likewise many general practitioners who desire to keep abreast of the times, should find much information of value to him in his routine work. It is a well known fact that many men in general practice have access in their offices to equipment which will at least permit a fluoroscopic examination of the chest, and much information for this type of practitioner will be found in this fine book.

Methods of Treatment. By Logan Clendening, M.D., Clinical Professor of Medicine, Medical Department of the University of Kansas, and Edward H. Hashinger, M.D., Clinical Professor of Medicine, Medical Department, University of Kansas. Eighth Edition. 1033 pages. The C. V. Mosby Company, St. Louis, 1943. Price $10.00.

The fact that this book has gone into the eighth edition is another proof of its popularity. As has been the case in previous editions, the authors have maintained the style of approaching the many subjects from the standpoint of treatment, and this appeals to the average reader.

Doctor Clendening's writings have been read far and wide by both physicians and the laity, and his popular literary style has been carried out in his Methods of Treatment so that it is more than another book on treatment, but is an

(*Continued on page* 40)



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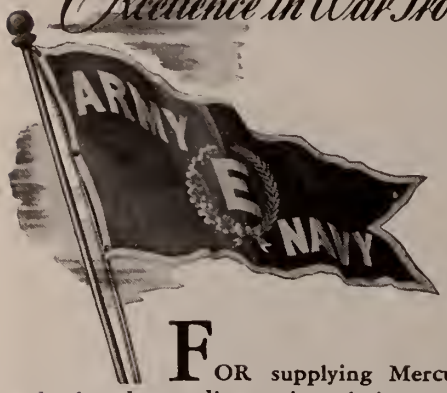
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BOOK REVIEWS (Continued)

excellent and most fascinating contribution to medical literature.

Popular therapeutic measures for treatment of disease are carefully considered and the proper evaluation is given in each instance. The opinions of the writers are based upon clinical research, and the application of therapy in extensive clinical practices, which makes it more authoritative in its recommendations.

Any physician who has a yen for keeping up to date in the application of therapeutic measures to actual pathologic conditions will be interested in the book. It will be a welcomed addition to any modern medical library.

Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

PSYCHOLOGICAL MEDICINE. A Short Introduction to Psychiatry. With an Appendix — War-Time Psychiatry — By Desmond Curran, M.B., F.R.C.P., D.P.M., Psychiatrist and Lecturer in Psychological Medicine, St. George's Hospital, and Honorary Psychiatrist to the Maida Vale Hospital for Nervous Diseases, London; Temp. Surgeon Captain, R.N.V.R. and Consultant in Psychological Medicine to the Royal Navy, and Reic Guttmann, M.D., L.R.C.P. Ed., Neuropsychiatric Specialist, Emergency Medical Service; Formerly Research Psychiatrist, The Maudsley Hospital, London, and Research Neuropsychiatrist, Nuffield Dept. of Surgery, Oxford. Foreword by J. J. Conybeare, D. M. (Oxon), F.R.C.P., Physician to Guy's Hospital, London. The William and Wilkins Company, Baltimore, 1943. Price $3.50.

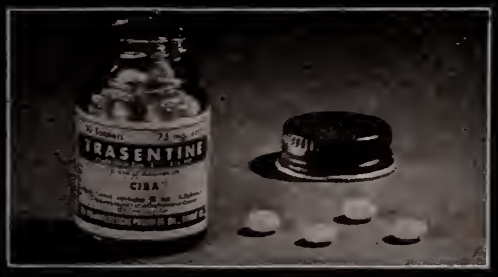
METABOLISM MANUAL. By Jessie K. Lex, R.T., M.T., (ASCP) President Illinois Society Clinical Laboratory Technicians, 1942-1943; Chief Medical Technologist, Chief X-Ray

(*Continued on page* 44)

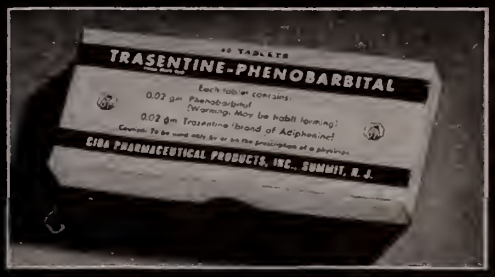


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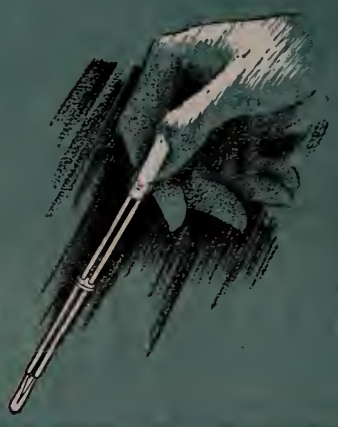
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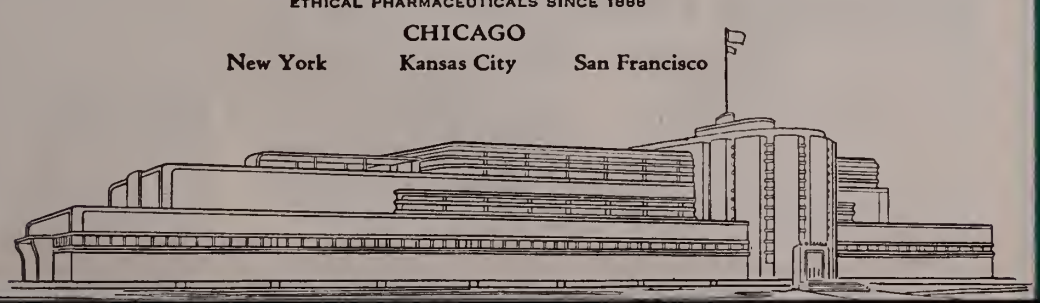
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(BOOKS RECEIVED (Continued)

Technician, the Diagnostic Clinic of George W. Parker, M.D., and George Mason Parker, M.D., Peoria, Illinois. The Waverly Press. Baltimore, Md., 1943. Price $1.75.

Pain. Research Publications. Association for Research in Nervous and Mental Disease. Proceedings of the Association, December 18 and 19, 1942, New York. With 116 Illustrations and 19 Tables. Editorial Board: Harold G. Wolff, M.D., Chairman, Herbert S. Gasser, M.D., Joseph C. Hinsey, Ph.D. The William & Wilkins Company, Baltimore, 1943. Price, $7.50.

Symptoms and Signs in Clinical Medicine. An Introduction to Medical Diagnosis. By E. Noble Chamberlain, M.D., M.Sc., F.R.C.P., Lecturer in Medicine, University of Liverpool; Physician to Out-patients, Royal Liverpool United Hospital, Royal Infirmary Branch; Visiting Physician Smithdown Road Hospital, Liverpool, Formerly Biet Memorial Rearch Fellow. Third Edition. With 346 Illustrations of which 19 are in color. The William & Wilkins Company, Baltimore, 1943. Price $8.00.

The Foot. By Norman C. Lake, M.D., M.S., D.Sc. (Lond.), F.R.C.S. (Eng.) Senior Surgeon and Lecturer on Surgery, Charing Cross Hospital; Surgeon, Bolingbroke Hospital; Consulting Surgeon, Emergency Medical Service; Director of Studies, London Foot Hospital; Late Senior Examiner in Surgery, University of London and External Examiner in Surgery, Victoria University, Manchester. Third Edition. The William and Wilkins Company, Baltimore, 1943. Price $5.00.

Experimental Biochemistry. By George D. Wessinger, M.S., Ph.D., Associate Professor of Chemistry, Chicago College of Dental Surgery, Dental School of Loyola University, Chicago, Illinois. The C. V. Mosby Company, 1943. Price $1.50.

The Medical Clinics of North America. The Philadelphia Number. Symposium of Medical Emergencies on the Home Front. W. B. Saunders Company, Philadelphia and London, 1943.



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(Continued on page 52)

GEN. MAGEE HEADS NEW WAR MEDICAL INFORMATION OFFICE

WASHINGTON, Nov. 30: Major General James Carre Magee, Medical Corps, United States Army, retired, has been named executive officer of the information service of the division of medical sciences of the National Research Council, Professor Ross G. Harrison, chairman of the Council, announced here today. He will assume office as of December 1. Gen. Magee will devote full time to the organization of a central office in the National Research Council which will collect medical reports and records, widely dealing with military medical practice, civilian practice as affected by the war, medical education and research and the distribution of diseases. This material, so far as military necessities permit, will be made available by publications, summaries and notes.

This service has been established by the Council under the recent grant of the Johnson & Johnson Research Foundation of New Brunswick, N. J., by which $75,000 was made available to the Council to enable it to assemble and disseminate as far as possible, medical information pertaining to the war effort. This enterprise is expected to fill a long felt need in providing up-to-date information to the medical officers of the armed services both in this country and abroad and in making the experience of war medicine available as far as possible to civilian physicians.

General Magee has had a distinguished record in the Medical Corps of the Army. A graduate of Jefferson Medical College in 1905, he has spent his entire professional life in the medical service of the Army. He was assigned to the Philippines before the outbreak of the first World War and then recalled for European duty

(*Continued on page* 48)

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GEN. MAGEE (Continued)

from 1917 to 1919. He was appointed Surgeon General of the Army in 1939 and on May 31, 1943, he was retired on completion of the four-year term of duty. It was under his direction that the Medical Corps was enormously expanded to meet the demands of the present war and the program of service adopted which has led to the remarkable health record of the Army. General Magee holds the honorary degree of Doctor of Science from Jefferson Medical College, and was recently awarded the Distinguished Service Medal for outstanding services as Surgeon General.

The citation for the Distinguished Service Medal said that General Magee's "farsighted and dynamic energy was greatly responsible for our soldiers being able thus far to emerge from battle with the lowest mortality rate among the wounded in our history," and pointed out that "the Army has benefited greatly from his eagerness to avail himself of the most expert advice and data from the civilian medical profession in the field of research against epidemics."

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The early recognition and treatment of tuberculosis found in the routine chest x-ray of expectant mothers will increase the chances for safe delivery and for permanent cure. Baltimore Health News, Oct. 1943.

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SAFEGUARDS NEEDED IN ESTABLISHING INTENSIVE TREATMENT OF SYPHILIS

An indication of the safeguards necessary in establishing the value of the intensive method of treatment of the venereal diseases is contained in a preliminary report on the activities of the Chicago Intensive Treatment Center, published in the November 27 issue of *The Journal of the American Medical Association.* The report is presented by Herman N. Bundesen, M.D.; Theodore J. Bauer, M.D., and H. Worley Kendell, M.D., Chicago, with the collaboration of R. M. Craig, M.D.; G. X. Schwemlein, M.D.; E. C. Sittler; M. F. Steves, M.D.; E. A. Strakosch, M.D., Ph.D.; A. A. Rodriquez, M.D.; N. D. Shaw, M.D.; Jack Rodriquez, M.D., and H. C. S. Aron, M.D., Ph.D.

The Chicago Intensive Treatment Center is operated under grants received from the Federal Works Agency, the U. S. Public Health Service, the state of Illinois and the Chicago City Council. It was dedicated on Nov. 29, 1942, as an added facility in the Venereal Disease Control Program of the Chicago Health Department. As a wartime emergency activity, the primary objective of the Center is to control effectively, and as quickly and safely as possible, the spread of venereal diseases by making noninfective those who spread these diseases.

Three methods of intensive treatment for early syphilis are being employed at the Center — two comparative and one noncomparative method. The two comparative methods are: modified Simpson, Kendell, Rose (artificial fever in air-conditioned cabinet plus arsenobismuth therapy), referred to at the Center as fever-chemotherapy, and the modified Schoch-Alexander method (multiple syringe, short term arsenobismuth therapy), called intensive chemotherapy at the Center. The noncomparative method is the modified Eagle-Hogan method (multiple syringe, long term arsenobismuth therapy), called long term intensive chemotherapy at the Center.

The average stay is seven days for patients in the fever-chemotherapy section and fourteen days in the intensive chemotherapy section. The two methods are being compared to determine whether intensive chemotherapy, or one of its

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modifications, may furnish an intensive arsenobismuth treatment to be given safely without the necessity for the elaborate equipment and highly trained personnel needed in fever-chemotherapy. Only those patients rejected for the two comparative methods are given long term intensive chemotherapy.

Patients admitted to the Center are given an extensive physical examination before treatment is started. The authors of the report say that "In our experience, intensive treatment is contraindicated in early active tuberculosis and certain forms of cardiovascular (heart and blood vessel) disease."

From Nov. 10, 1942, through Oct. 8, 1943, 931 patients were given fever-chemotherapy for syphilis. Two cases—the 13th and 69th—terminated fatally. After the first death the maximum dosage of mapharsen was reduced. Following the second death, only those patients were allowed to receive either of the comparative treatments who were found to be free of active tuberculosis. Since the second death, 862 have been treated consecutively with no fatality or serious reactions. After the deaths improvements also were made in various phases of the fever treatment.

In a series of 488 patients, the number of failures has been 1.6 per cent (2 serologic and 6 clinical relapses).

Three hundred and ninety patients were treated with intensive chemotherapy, 172 receiving 1,200 mg. of mapharsen within ten days; 5.8 per cent failures were noted. The method was discontinued since reactions severe enough to stop treatment were encountered in 11.9 per cent of the cases treated. A modification was then adopted whereby all the mapharsen was given within seven days. The observation period of this group of patients is too short to allow any conclusion. Of 81 patients treated with long term intensive chemotherapy, 52 have thus far become serologically negative and 1 patient developed serologic relapse. There have been no clinical relapses to date.

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To be considered by the committee of judges, nominations for this award for work published in 1943 must be received by the secretary, Arthur H. Smith, Ph. D., Wayne University College of Medicine, Detroit, by Jan. 10, 1944. The nominations should be accompanied by such data relative to the nominee and his research as will facilitate the task of the committee of judges in its consideration of the nomination.

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URGES SHORT INTENSIVE COURSE IN PSYCHIATRY FOR ALL DOCTORS

Is Required Not Only To Meet Armed Forces' Needs But For Tremendous Postwar Job In This Field, Army Officer Says

Short intensive psychiatric training courses for physicians are very much in order, not only to meet the need of the armed forces for more psychiatrists but also for the tremendous postwar job in this field, Lieut. Col. William C. Menninger, Medical Corps, Army of the United States, Neuropsychiatric Consultant, Fourth Service Command, declares in *The Journal of the American Medical Association* for November 20.

"The second major concern confronting every physician, both in and out of the Army," Colonel Menninger says, "is the number of psychiatric cases which the war experience has disclosed in our general population. The medical and social implications of this group are beyond our present ability to estimate.

"The third major problem confronting the army psychiatrist is the rapid and most effective disposition of these maladjusted individuals in the Army. The first purpose of the Army is to win the war, and consequently these soldiers unfit for service must be given over to the care of civilian agencies and civilian physicians with the hope that they will accept the responsibility and provide treatment for these men in accordance with our most modern psychiatric concepts."

The psychiatric problems of the Army, Colonel Menninger explains, "should be of vital interest and concern to every citizen interested in the war effort and particularly to medical men. They should be of interest, first, because of the great number of men whose army experience has brought to light their need for medical and particularly psychiatric help. This fact may be vividly portrayed by these figures: an average of 8 to 10 per cent of men examined for military service are rejected for psychiatric reasons, and nearly 30 per cent of the discharges from the Army are for psychiatric reasons. In contrast, only 2 per cent of the medical profession are psychiatrists. The social implication of these figures is enormous, but their importance to the medical profession is even greater.

"Every internist is aware of the fact that even in normal circumstances in our prewar practice between 40 and 60 per cent of the patients seeking medical help present only functional disturbances. . . ."

The Colonel points out that, despite the lack of trained psychiatrists and the lack of facilities, the caliber of neuropsychiatry practiced in the Army is surprisingly good.

CONGRESS ON MEDICAL EDUCATION AND LICENSURE MEETS FEB. 14

The Annual Congress on Medical Education and Licensure, under the auspices of the American Medical Association's Council on Medical Education and Hospitals, will be held Feb. 14 and 15, 1944 in the Palmer House, Chicago, *The Journal* of the Association announces in its November 20 issue. The program for the first day will be under the auspices of the Federation of State Medical Boards.

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